DOCUMENT RESUME

ED 050 174 TM 000 572

AUTHOR Bash, Maurice J.
TITLE A Comprehensive Curriculum Evaluation of the Christian Action Ministry Academy-1970.
INSTITUTION Illinois Univ., Chicago. Chicago Circle Campus.
PUB DATE Nov 70
NOTE 140p.

EDRS PRICE EDRS Price MF-$0.65 HC-$6.58
DESCRIPTORS Black Community, *Church Programs, College Students, Community Cooperation, Curriculum Design, *Curriculum Evaluation, *Dropouts, Dropout Teaching, Economic Disadvantagement, *Negro Education, Program Evaluation, Research Design, Student Attitudes, Student Teacher Relationship, Urban Dropouts, *Urban Schools

ABSTRACT

The results of a comprehensive curriculum evaluation of the Christian Action Ministry (CAM) Academy, which was founded to help black dropouts complete their high school education and secure college placement are reported. The CAM Academy requested the assistance of the University of Illinois in undertaking a comprehensive curriculum evaluation to provide the data necessary to the development of a new program. Objectives of the evaluation were to determine the effects of the educational program on the students, to explicate the instructional and curriculum designs in operation and changes which had occurred in them, to identify the constructs in these designs which made them viable alternatives for the students, and, finally, to test areas of cooperative endeavor which would be beneficial to both the University and its neighboring community. A modification of Stufflebeam's model which employs four evaluative areas - context, input, process, and product - was employed as a guide for data collection. A number of data sources were tapped and the resulting information was analyzed against contrast data on public school curricula and students. Results are presented and educational implications are discussed. (PR)

OFFICE OF EVALUATION RESEARCH

ED050174

COLLEGE OF EDUCATION

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY

A COMPREHENSIVE CURRICULUM EVALUATION OF THE CHRISTIAN ACTION MINISTRY ACADEMY, 1970

TM 000 572

UNIVERSITY OF ILLINOIS
AT CHICAGO CIRCLE

ED050174

A COMPREHENSIVE CURRICULUM

EVALUATION OF THE CHRISTIAN ACTION

MINISTRY ACADEMY - 1970

Maurice J. Eash
Director, Office of Evaluation
Research
University of Illinois at
Chicago Circle
November 1970

TABLE OF CONTENTS

		Page
LIST OF TABLES AND FIGURES		iii
CHAPTERS		
I.	INTRODUCTION	1
II.	PROCEDURE	9
III.	FINDINGS	15
A.	The School and Its Social Context	15
B.	The Student Body	19
C.	Student Attitudes	26
D.	Curriculum Design	33
E.	Instructional Design	42
F.	Student Achievement	59
G.	Academy Students in College	64
H.	CAM Academy Administration	73
I.	CAM Academy Faculty	81
J.	Cam Academy as an Alternative School	88
IV.	CONCLUSIONS	96
A.	Sources of Student Responsibility for Learning	96
B.	Student to Student Instruction	99
C.	The Significance of Criterion Referenced Evaluation	100
D.	Curriculum Design and Future Program Plans	101
E.	Time Horizons and Planning for the Future	104
F.	Academic Achievement at the Academy	106

G. Learning Centers 107

H. Selection and Retention as it Defines the Academy's Student Body 110

I. The Academy, Staffing, and Cost 113

J. Instructional Design and Personal Failure 114

K. CAM Academy as an Alternate School Model 117

FOOTNOTES 121

APPENDIX 123

LIST OF TABLES

Table

I.....Student Perceptions of Differences Between CAM Academy and Public High School.

II.....Students' Suggestions For the Academy.

LIST OF FIGURES

Figure

1.....Percentage of Average Achievement by Academy Students in Reading, Mathematics, and Language.

2.....Achievement of Students During Enrollment at the Academy.

3.....Language Achievement of Academy Students.

4.....Mathematics Achievement of Academy Students.

5.....Selection and Retention of Academy Students.

INTRODUCTION

The Christian Action Ministry, a social action organization, is composed of a group of eleven churches located in the West Garfield Park section of Chicago, Illinois. Dedicated to the improvement of the lot of the lives of people who live in this area and a long range goal of improving the social conditions for a large number of the poor of greater Chicago, they have developed a series of social programs that directly address the problems which afflict the poor in urban centers of the United States. Recognizing education as a paramount problem for black youth, the Christian Action Ministry Academy, a school for black dropouts, was founded. It was a natural outgrowth of the concern of a group of religious and lay leaders that in their mission to improve the long range welfare of the people in their parishes, better education was a primary necessity. Education being a prerequisite to a career or occupation, one of the shared problems of a sizeable number of residents of the area was lack of formal schooling. In particular those youths who had failed to be successful in the local high schools were now in limbo lacking jobs and denied future education as a result of their leaving prior to completion of high school. To experiment with developing more viable avenues for black dropouts or pushouts, the Christian Action Ministry (CAM) Academy was founded in 1967. Beginning with a small number of students in a pilot program in January 1967, it graduated fifteen students in June 1967, and by January 1970 it had quadroupled its graduating class to sixty-one students. During this three year period there had been a number of curriculum innovations and, by comparison with traditional education, a considerable evolution in the pattern of education offered.

Having invested the bulk of their energy in designing new curriculum and having tried a number of experimental alternatives over the past three years, the Academy staff and administrative officers in the Christian Action Ministry had come to the conclusion that there was need to obtain an outside evaluation of their program for future planning. Early in 1970, the College of Education at the University of Illinois at Chicago Circle was approached to conduct a comprehensive curriculum evaluation and render a report to the staff of CAM Academy in the fall of 1970. The Office of Evaluation Research in the College of Education was asked to undertake this evaluation, and release time was granted to the Director, Maurice J. Eash, to conduct the study. Along with the contribution of one-half of the Director's time for the spring semester, two graduate assistants from the Office of Evaluation Research were assigned half time, and clerical assistance for the development and preparation of the instruments used with the students and the typing of the final report were furnished. Other financial assistance for the project was contributed by the Urban Education Research arm of the College of Education through their payment of certain expenses incurred in hiring interviewers and additional clerical assistance needed at certain stages in the study.

The major data gathering phase of this study was conducted during March. April, and May 1970 and consisted of obtaining interviews from the chief administrator of Christian Action Ministry, the program coordinator, the administrative staff of CAM Academy, the faculty of CAM Academy, a sample of students attending CAM Academy, a former teacher at the Academy and college pupil personnel staff where Academy students were in attendance. Questionnaires were administered to the students of CAM Academy, and graduates of CAM Academy who were then in college. A small study of

alternative schools was conducted to gain data for comparison purposes with the CAM Academy model. These data, then, constitute the basis for this report. Utilizing the objectives of the CAM Academy as the basic outline for the evaluative study, the investigation was designed to gather data which would shed light on the accomplishment of the stated objectives.

As stated, the purposes of CAM Academy are to emphasize the following five aspects of education:

1. Basic skills in communication: regardless of what vocation a person chooses it is imperative that he be able to communicate with those around him. Our educational objective is that our students be able to listen, read, write, and speak with facility.
2. The formation of individual and collective identity: A person must have experiences that aid him in describing himself and appreciating "who he is".
3. An appreciation of the heritage of man and the varieties of human life. Regardless of what a person becomes, the greater his understanding of how other people live and have lived, the greater will be the options open to him for his own actions. This should increase his understanding of other people and enrich his cultural perspectives.
4. Skills in self-expression: The sense of mastery which a person achieves through participating in the creative arts not only encourages the development of a positive self image, but also provides him with the skills necessary to <u>respond</u> creatively to his environment.
5. An ability to solve problems: A person should be able to think

analytically and critically, and provide creative and thoughtful solutions to problems that he might face, regardless of what those problems might be.[1]

From these objectives, then, the evaluation design used a modified data gathering matrix developed by Daniel Stufflebeam of Ohio State University.[2] In this data gathering model, four categories of variables are examined: context variables, input variables, process variables, and product variables. A wide variety of data is collected. and the evaluation judgements are the results of both internal comparisons among these different variables and external comparisons with other similar groups as is typically done in other types of evaluative studies.

Using the above data gathering framework, the objectives of the evaluation were:

1. To describe and define the curriculum model that is being used at CAM Academy as it relates to the broader alternative school movement. CAM Academy is one of a number of schools that sprang up as alternatives to the public school system and operated on different assumptions for building a curriculum
2. To identify and specify the effects of CAM Academy on students through using comparative data gathered on other similar groups of students who are seeking their education in the public schools.
3. To determine and specify, when feasible, the major effects of the program as generated by the teaching staff, administrative organization, instructional design, and the overall curriculum. Moreover, whenever possible, to specify the relationships of these clusters of variables in their effects upon students' education.

4. To explicate the major constructs in the instructional and curriculum designs of the CAM Academy as they have evolved and operated over the three year period that the Academy has been in existence.
5. To examine the effects of the Academy on students in relationship to the input variables of student experience and comparative cost in other school systems.
6. To examine the effects of the overall efforts of the CAM Academy and its staff and their approaches to education on the local public schools and to a limited extent on the colleges that the graduates attend.
7. To explore and analyze the areas of interaction between a private alternative school and a state university's teacher education program whereby mutually beneficial reciprocal relationships might be established that would strengthen the programs of both institutions.

Using these objectives as a guideline, the data which were gathered in the spring of 1970 were analyzed during the summer of 1970 and are reported herein. Separate sections of this report carry a description of the specific procedures, a presentation of the findings, and interpretation, and conclusions and recommendations for the CAM Academy program. As one part of the study, two days of consulting with the workshop staff at the end of the school year, June 1970, on the basis of a preliminary examination of the data was done by the Director and James Napolitan, one of the graduate assistants who participated in the study.

Evaluative studies are complex undertakings, and while they may have single authorship, the necessary support for their conduct and

their completion are always the products of multiple and cooperative efforts. Therefore, the author wishes to acknowledge his indebtedness to a number of individuals and to the College of Education of the University of Illinois at Chicago Circle for their assistance and support. Without the interest and support of the College of Education of the UICC this study would not have been made. In keeping with their commitment to assist local community organizations to develop social action programs deveted to improving the lives of residents of the West side of Chicago, the University donated the time of the principal investigator, and supplied funds for additional personnel and materials to support the project. A number of individuals figured in this phase of the project. Dr. Van Cleve Morris, as Dean of the College of Education, made possible the release time of personnel in the Office of Evaluation Research, and provided personal support and advice at important junctures. Dr. George Giles, Associate Dean, aided immeasurably in arranging funding and contributed important background information on CAM Academy. Professor William Silverman of the Urban Education Research staff made the initial arrangements, and set the stage for the joint evaluation endeavor between CAM Academy and the College of Education of UICC. Mr. Charles Anderson of the Educational Assistance Program of UICC gave assistance at a critical time in identifying interviewers.

Without the enthusiastic cooperation of Mr. Al Portis, Administrator of CAM, and the administrative staff and faculty of CAM Academy this study could not have been concluded. They permitted numerous intrusions into their over-burdened schedules to collect data, and made available records and archival documents. Theiropenness to provide information was evidence of their desire to examine their operation as rigorously as possible, and

is a major contributing factor to the analysis and judgements which emerged from this study. A commitment to examine alternatives to accepted approaches in educational practice has been a hallmark of the Academy since its founding, a commitment which eases considerably the path of an outside evaluator who must have access to a wide range of data with mixed reprts on the program.

In the Office of Evaluation Research, I am indebted to Mr. James Napolitan, graduate student, who bore much of the work on analyzing records, compiling the statistics on students and pulling together the data on alternative schools. Mrs. Helen Brown, my graduate assistant, was especially helpful in editing the final copy. Mrs. Karen Phillips and Mr. Mark Bargen also aided substantially in typing the final draft.

Interest in alternative schools and in the product of their experimental efforts has heightened in the last few years due principally to the profound and seemingly insoluble problems that saddle most urban school systems. Alternative schools have sprung up in many places, but their staying power has been waek--as our small study on these schools demonstrates. This short life span has handicapped the evaluation of the conceptual basis of these schools and eliminated the opportunity to assess student learning with standardized procedures. The results of this study of the curriculum of the CAM Academy begin to lare bare some of the assumptions as well as the successful practices of an alternative school that has accumulated sufficient history to provide a valid test of innovative practice.

This report, then, can be read with interest by those who have been curious about alternative schools and who would be able to profit from the experience of CAM Academy which has a record of being one of the

older alternative schools and which, as this report documents, has progressed far beyond the early expectations of its founders.

PROCEDURE

Using the modified Stufflebeam evaluation model, procedures were designed to gather data on four categories of variables: (1) input data on the curriculum, instruction, students, and staff, (2) context data consisting of a description of the setting of the school, (3) process data, largely a description and analysis of the instructional and curriculum design, and, (4) product data, a description and analysis of the results and effects of the Academy program on the students.

Data were gathered through four main sources: interviews, questionnaires, school records, and student records. The four faculty members, principal, and program coordinator were given two hour interviews and were consulted innumerable times to clarify or elaborate on data. A lengthy interview was conducted with the Director of the Christian Action Ministry to probe the setting of the Academy within the total program of action.

A sample of 32 students in attendance at the Academy during the week of May 12 were administered an 87 item questionnaire and interviewed with a semi-focused interview built around six stimulus questions. With the exception of seven items, the interview was drawn from the pool of items used in the Equality and Educational Opportunity study[3] and Project Talent.[4] Prior to administration, the questionnaire and interview instruments were tested on a group of students from ghetto backgrounds, and reviewed with the administrators of the Academy; as a consequence, some items received minor editing and several items were added. Results from the two above mentioned national studies served as comparison groups for the returns from the Academy sample. These results are tabulated and reported in the chapter on findings. To meet the problems of reading a lengthy questionnaire the interviewers administered the questionnaire prior to conducting

the interview with the subject, and ~~in a few cases where reading~~ difficulty was evidenced, read the questionnaire to the subject. For the student interviews black interviewers were used in keeping with the research evidence supporting the contention that under given circumstances interview data can be influenced by the racial identity of the interviewer.[5,6]

One interview was held with an ex-teacher who had left the Academy during a controversey in 1968, but who had made a major contribution to the instructional design of the language arts component of the program. At the time of the interview, he was on the staff of a local college.

A questionnaire for CAM Academy students enrolled in college was developed using the same items, with some minor modifications, as those for the enrolled Academy student. The open-ended questions were directed to having the student assess his college experience. In addition, to increase response since the college sample was small, long distance calls were made to every college and university where CAM students were in attendance, and arrangements were made to have a staff member there designated to assume responsibility for receiving, administering, and returning the questionnaires. As the study progressed, the college survey encountered severe difficulties due to the almost nationwide disruption of campuses in May 1970 which occured simultaneously with the survey. Consequently, much of the data on the college sample was gathered in telephone interviews with college staff who were connected with the special programs for disadvantaged students. In some institutions there were no special programs and it was impossible to identify staff who knew the former CAM students. Due to the prevailing chaos and disorganization, several of the subjects were not contacted, or if contacted, left campus without returning the questionnaire. Of the 39 enrolled,

33 finally were accounted for and seven completed the questionnaire.. These data are treated descriptively and shed some light on the range of differences among the CAM Academy students who attend college. Moreover, they suggest some of the problems that spring from the interaction of student background and institutional environment. Noting the low rate of return as the survey paralleled the nationwide college disruption, these data may inferentially be informative on the organizational functioning of colleges and universities at this time of crisis.

Another primary source of data was the archives of the Academy. The archival records contained an extensive set of documents on the development of the Academy, and were an especially valuable source of information on curriculum construction and major design changes. Included in the records were creative products of students, some anthologies of student writing, copies of student newspapers and petitions from students to the faculty. These records were particularly helpful in the analysis of the shifting emphasis on instructional design during the three years of the Academy.

Student records were fragmentary, but test data was available on the majority of the students in the sample. Entering test data was gathered on a random sample of 31 students who had entered CAM but did not attend any appreciable lenght of time. Included within this sample were a few cases in which the subject took the entering test and did not enroll. The test data on the sample of students who were in attendance at the time of the study included both entering and end-of-year achievement data in three areas: reading, mathematics, and language skills. These data were scores on the Test of Adult Basic Education published by the California Psychological Corporation. A more limited sample of test data on student performance was contained in the scores on the test

data on student performance was contained in the scores on the test of General Educational Development, as some students had not taken the G.E.D. during the spring administration. Comparisons of the means of the pre and post-test scores of the TABE tests were run. Other comparisons were made of the scores of sub-samples of the students who had applied for admission, or had been in attendance, as well as comparisons with public school data.

Of particular interest to curriculum designers and others who have studied the alternative school movement are the constructs of the instructional design which have emerged from the innovative efforts with the student population at CAM Academy. The present instructional design was described using data gathered in interviews with teachers, students and administrators. Certain records were examined: the student advisory sheet, student assignment folders, and the materials in the learning centers. The instructional design was analyzed along the specific constructs of: (1) objectives, (2) dominant modes of transactions, (3) subject matter content, and (4) direction and range of evaluation procedures. Data on how the design fulfilled these constructs was compared with more traditional approaches to instructional design typically found in secondary school practices. The instructional design model now used was compared with previously used models which differed primarily on emphasis rather than on general objectives. Having data from three sources on the instructional design afforded opportunity to do a triangular analysis of the constructs.

Data on the overall (macro) curriculum design was collected from records and interviews with the administration and the former teacher. The curriculum design was constrasted with more traditional subject-centered designs in both its general education and special

interest education components. Although the records were fragmentary, some comparisons of the macro design emphasis and changes over time were made.

Evaluation always involves comparison. Where the sample of subjects and the educational model are markedly different from most previous investigations, special problems for appropriate comparative data plague the investigator. To offset the lack of the rigor which random assignment of subjects, control groups and other similar methodological niceties contribute, multiple data sources were tapped and cross comparisons of qualitative data were used. Perhaps of greater importance in data interpretation, however, is the use of the outcropping theory which holds that one can estimate the strength of the general evidence by the dominant trends in a variety of data where the sources individually are insufficient, but taken together do reveal dominant trends and reflect coherent patterns.[7] Comparisons of the models of instructional and curriculum design require the identification and description of the constructs of the models being used. As previously noted, this required the bringing together of data from several sources and reconciling the paradoxes. Having delineated the models in use, these were compared and contrasted with the constructs of conventional models described in the literature. In the comparisons of test data, normative data was available as well as some data from public schools that the CAM Academy sample had attended. With some statistical transposition, it was possible to make comparisons of reading achievement. Where pre and post achievement measures were available, comparisons were made with normative data available on the test, with past achievement trends of the sample, and with neighboring public high schools which most of the students had attended prior to enrollment at CAM

Academy. As is most evident in the section on conclusions, much of the data were analyzed against studies in the literature which related to and illuminated the findings, a necessary element in moving field evaluation research findings beyond simple description.[8] In summary, a breadth and variety of data were collected, and multiple comparisons made to compensate for lack of controls on the population under study. Data quality control was exercised by cross-checking data from different sources, and the outcropping theory of data interpretation was followed in drawing conclusions.

FINDINGS

The findings are presented under six side headings which reflect, to an extent, the categories of data in the evaluation model and the organizational structures of a school. Within the findings, however, one will find an overlapping use of data from the evaluation model's categories when it is relevant.

The School and Its Social Context

An important contributor to the understanding of a school and its instructional problems is a knowledge of the social context within which a school operates, and that governs the outside-of-school experiences to which students are exposed. Some authorities cite these influences as the major factors in determining school achievement. Since these environmental factors have been influential in the founding of the school and the shaping of its curriculum, a brief description of the school in its social setting follows.

Located in the West Garfield Park area on the West side of Chicago, CAM Academy is in an area that is largely a black ghetto. The Academy is housed in a former bank building which the Christian Action Ministry has purchased for its programs. The Academy shares the building with an employment bureau, a consumer fraud agency, college placement assistance, and the adult education unit. CAM is presently purchasing this building and a percentage of the costs of the Academy are obligations on repayment of the loan. The building provides adequate space for the present organization of the Academy, and offers limited room for expansion.

An important determinant of the Academy and its curriculum is the surrounding environment. The building housing the Academy is located

on a busy street within a small business district containing a variety of retail stores. Off the adjoining side streets are the usual carry-out food shops, dry cleaning, small grocery shops, laundry, beer joints, and record stores. Within this area and scattered among the small businesses are vacant stores, a number of which are burned out, visible evidence of the fires that swept this area three years ago. Many of these burned out shops have not been cleaned up or boarded up, and are areas where children play and garbage accumulates. There are few new businesses moving in the area other than occasional small businessmen, and to all appearances the one large chain store, while maintaining its present outlet, is not expanding, nor are other large businesses establishing stores in the area.

West Garfield Park has been in transition for the past decade, but is now a solid black neighborhood. Moving into the area are blacks predominately from other sections of the city and a limited number of newer immigrants from the South. Transiency is high, but probably lower than in other black areas of the city where the housing is in a greater state of deterioration. The level of transiency is directly reflected in the students' report of the number of times they have changed school outside of the normal changes mandated by grade progression. CAM students averaged just a little less than four switches, while the nationwide Project Talent sample averaged between 0 to 1 school changes.

Housing is mixed, with some streets being lined with a few quality apartment buildings now deteriorating, other small shabby apartment buildings, and some blocks of one-family well-kept homes. Regardless of the structures, overcrowding is endemic, and the streets teem with people. On side streets, the population density of the area is visible in the numerous young children at play; while on the main streets adults

meet, hustle, hang out, and transact business. The life of the street is a prominent feature in the lives of the Academy students, and the shadow value system that infuses street life is evident in the Academy. The iron law of economic scarcity which haunts the street and its activities is also apparent as an overarching factor in shaping student behavior toward learning, jobs, and careers.

Unemployment is a stark fact of life, especially for black youths who have not graduated from high school. Academy students reflect this characteristic in that few held jobs, and many had been unemployed since leaving school. To be unemployed contributes to the problem of employability, as has been noted by studies of the unemployed. Correspondingly, the Academy's experience in providing part-time jobs for students ran afoul of the many built-in personal problems of meeting job demands which plague the out-of-work. Fear of failure, relegated to jobs that are of limited status, and even viewed with contempt by the general public. The job becomes a part of the syndrome which contributes to lowered self esteem and marginality in the society. Liebow described the relationship of low self esteem and employment: "Thus, the man's low self esteem generates a fear of being tested and prevents him from accepting a job with responsibilities or, once on a job from staying with it if responsibilities are thrust on him, even if wages are commensurately higher. . . Lethargy, disinterest, and general apathy on the job, so often reported by employers, has its street corner counterpart. The men do not ordinarily talk about their jobs or ask one another about them."[9] These personality traits are prominent in the school, and present major motivational and instructional barriers. The uniqueness of the Academy has been its ability to devise programs to directly address these problems.

A not insignificant fact governing conduct in the community and in the public schools is the presence of organized gang activity. Especially among the males, gang activity is a force, requiring in a number of cases that the individual join for self protection. The questionnaire data contains evidence that some students came to the Academy due to the activity of the gangs in the high schools, either in recruiting or in conflict. "No gangs," was a positive value of the Academy cited by a number of the students in their assessment of the strengths of the school.

CAM Academy's student body lives in the local area, and most pupils had attended one of the seven high schools on the West side of Chicago. Many of these students had known each other in their high schools, and it was not uncommon for them to come to CAM Academy through the invitation of a student they had gone to high school with. Fourteen of the thirty-two sampled said they came to enroll through the urgings of a friend and four more directly cited . . "a person from CAM." It is unclear whether the contact was a student or person from one of CAM's programs. Most of the students had lived on the West side of Chicago for a period of time although West Garfield Park is an area which, in the last decade, has changed from a population of predominantly Southern European ethnic groups to an all black area.

The student body is overwhelmingly male in a ratio of about four or five to one. This is understandable when one realizes that for central city schools it is not uncommon for Negro males to have an eighty percent dropout rate. Two significant factors for males and females, particularly because they had a very strong bearing on school attendance and students remaining in CAM Academy for a period of time, were police involvement and dependent children. Approximately 85% of the males had some

kind of police involvement prior to coming to CAM, and a number were arrested while they were students. The police involvement many times interfered with their attendance inasmuch as they would be held in jail without bond or became involved in court actions which would keep them away from school. Fifty percent of the females have one or more children, and this is a significant factor influencing their school attendance. Most of them could not afford to hire baby sitters, and there were few day care centers available in the neighborhood where they could leave their children. One frequently sees young children around the school. It was the opinion of the director of the Christian Action Ministry that a full-time day care center would help materially in the enrollment and full-time attendance of girls.

The problems of the immediate community intrude on the Academy and have in the past conditioned the educational settings provided in the neighborhoods. Gangs, drugs, alcohol, physical violence and other social disorganization have become manifest in the schools, preventing, in a number of cases, the functioning of an effective educational program.

The Student Body

To provide a more detailed description of the student body's characteristics a questionnaire was administered at the time of the interview to the sample of 32 students in attendance during the week of May 12,1970. Information was gathered on the student body in the matter of work experience, family life, interpersonal relations, schooling, social activity, and activities at CAM. The questionnaire used selected items from the two national studies, Project Talent[10] and the Coleman Report[11] along with additional open-ended questions specific to the Academy.For the purpose of analysis, the responses given by the CAM student were compared

to the data from these two national studies. Hence, "more" and "less" are terms that indicate differences in percentages of CAM from those of the national study.

In work activities, the data indicated that males did less work around the house, more rarely delivered newspapers, babysat, mowed lawns, or kept house. However, males were a little more likely to have done clerical work during the summer (work in this questionnaire likely reflects summer jobs as much as part-time work). In addition they were more likely to have worked in factories and retail stores as stock and delivery men and on clean up work. Females were more likely to have been employed in sales work. Females were unlikely to have had much of their spending money come from allowances. Males, however, were more likely than the national average to report their spending money came from allowances.

To explore the social activities of the students, the questionnaire probed the individual's involvements in various formal and informal organizations. On these questions, the responses were similar to those of the national group with the singular exception of significantly more activity in informal neighborhood groups. In the realm of entertainment the CAM students go out for fun and recreation a significantly greater number of evenings per week; an average of three or four nights per week. A somewhat suprising answer, however, is that males claim to have read more books than the national norm within the last 12 months. Of the males, 49% claimed to have read 11 or more books within the last 12 months; of the national norm only 22% claimed to have read 11 or more books. The females answered about the same as the national norm. These figures were disputed by the faculty.

A number of items in the questionnaire concerned the students previous scholastic e perience and present involvement in CAM Academy. At CAM the average number of hours in attendance reported by the students is approximately 15-17 hours a week, substantially less than the thirty hour week of the public school student. The students estimated that they spend approximately 5-10 hours a week in study which is the same as the national sample. One might speculate that this response indicates a certain amount of volunteerism that might be found in self-selected students such as CAM's. However it may be an artifact of experimental demand. What leads one to suspect these responses are the males' responses when asked for their high school grades. The grades reported prior to CAM are actually higher than the national sample of high school graduates. Fourty-six percent of the males, all high school dropouts, indicated that they had had mostly A's or B's. There may be a general reluctance to admit to educational deficiency. They also indicate that they work a mean number of approximately 5-10 hours a week.

Concerning their relationships at CAM, the students answered that the number of CAM students that they considered as friends was approximately 7 or 8, the highest number possible on the scale. The students reported that their relationships with their teachers were either friendly or close (28 of 32). Twenty four of the 32 said they would recommend CAM for students "like myself". None of the students said they would "not recommend CAM at all." Six stated that they came to enroll through the recommendation of their high school, 14 due to recommendations of a friend, 4 through recommendations of a person already in CAM and 6 from other sources. This perhaps indicates the increasing status that CAM holds in the eyes of public high school counselors.

There are some restrictions placed on enrollment in the Academy by state law; all students under 17 years of age must be enrolled in an accredited school. CAM, lacking accreditation by the state at this time, cannot accept students who are under 17 years old. The student body tends to be between the ages of 17 and 21. Nevertheless, most of these students were not close to the completion of high school, and dropped out generally at the end of the tenth or the beginning of the eleventh grade. Several of these students have been out for a number of years, so it is not unusual to find a few older students attending CAM, in their early twenties, and in two known cases, students who were in their thirties. Nevertheless, most students who are in attendance are 17-18 years of age.

The major input data figures concern the background factors of family and home. Significantly, the CAM students listed the mother as the main breadwinner in their home much more frequently than the father. In the national studies, 85% of the sample indicated the father was the main breadwinner and only 9% indicated the mother. However, on the CAM data, 15 of the 32 stated that their mother was the main breadwinner, and only 14 of the 32 listed the father. The students at CAM reported that their fathers were more likely laborors and policemen than the national sample. The boys did list that few of their mothers were housewives, and more were laborers, service workers, and semi-skilled workers.

37% of the CAM students reported that they did not know their father's occupation, compared to 7.1% of the national norms, reflecting the father-absent home lives of the CAM students. On the work of the mother there was no difference on the "I don't know" responces, approxi-

mately 10% for both males and females. On questions concerning the places where students are now living the father absence was again observed. Only 43% stated that they were living with both their fathers and their mothers, whereas of the non-college respondents of the national sample, 80% lived with both parents. Thirty four percent stated that they were living with their mother only. These responses were consistent with the previous responses concerning the work of the father where 30% of the students listed "I don't know" if the "I don't know"s are assumed to include reference to absent fathers. And moreover, if one were to add 30% to the mother and father present figure they would approximate the national average.

The economic stress among the enrollees was very great. In looking at the questionnaire data, one finds that the family's economic base is affected by size of the family, and by one-parent homes headed by women. In most cases, these mothers were employed in non-skilled or semi-skilled jobs which put them in the position of not earning enough to effectively support a sizeable family. The most recent census data on the West Garfield Park area places over one-third of the families in the area well below the poverty line set by the Labor Department. Several of the students no longer lived at home, but were on their own and were required to meet all of their daily expenses.

The student body tends to come from large families; 5.9 is the mean number of children in the family, a sizable increase over the national average of 2.3. The students tend to be middle or younger children rather than older children. Whether this implies that the position of the sibling in a family is a determinant of the amount of education that children from this particular population receive is open to speculation. Might it even suggest that older children in very large

families probably have even more severe limitations on their opportunities for educational advancement than do middle or younger children?

Also reflecting the community of the CAM students is the fact that many more live in a two-family house. In the national norms, roughly 75% listed a one-family house, whereas in the CAM data, 14 of the 32 listed a two-family house.

On one of the most interesting questions, the student description of the family finances, 41% of the boys considered their families well-to-do and approximately 34% more listed themselves as comfortable. These are actually above the national percentage averages. It seems possible that these responses could involve a difference in reference, i.e., that if both parents are working the total family income relative to other family's incomes in the ghetto may be significantly higher. However, we have no reason to believe that the number of two-working-parent households is greater in this population. Another interesting response was the stated number of books in the family homes. Both males and females at CAM reported they had slightly more than the national average of approximately one bookcase full. The CAM student mean was actually closer to two or more bookcases full, and 19 of the CAM students reported three or four bookcases to a library full of books. One is, of course, reminded of the conclusions of the Coleman data indicating the immense effects of academic encouragement through such devices as the provision of reading materials that the family can have on the intellectual development and achievement of the youth. However, the impact of homes rich in reading material is not reflected in the CAM students' reading scores, as reported in the section on achievement.

In one area of interpersonal relationships, it was found that both males and females at CAM have discussed their college plans more times with their teachers at CAM than the average number of such discussions in the national sample. However, there was no difference from the national sample in discussing jobs, occupations after high school, high school work, or personal problems. As might be expected with the absence of fathers from many homes, males and females did respond that they had discussed their plans after high school far less times with their fathers than did the national norms. Most, in fact, reported 0 or only once. Lest this be interpreted solely as an artifact of the father absences, they also discussed future plans with their mothers far less times. There were no differences in the number of discussions with brothers and sisters, teachers, and clergymen, the norm being a rather interesting mean of only .47 times. In summary, we find that the number of discussions CAM students have had with others is generally lower than the national average with the exception of discussing college plans with CAM instructors. This may be seen is indicative of the college orientation at CAM.

In areas of income and education, the student report data seems perilously distorted. When cross checked with faculty and others knowledgeable about the students and their families, these responses were reexamined. As one informant, wise in the ways of the ghetto, said, "There are two difficiencies one must never publicly admit; being poor, and being uneducated." The consistency of the students' responses on items in this category, in the face of compelling data to the contrary, would lead one to conclude that these factors were operative here.

Student Attitudes

The data on the attitudes of CAM students were obtained from questions from both Project Talent and the Coleman Report, particularly the section of "fate control" questions. The questions utilized fall into three general areas: self-assessment, (especially as revealed in statements about study habits), attitudes toward the Academy, and the individuals general sense of control over future and environment. One limitation was that there were only eight girls in our sample, consequently any conclusions based on the females must be considered as only tentative.

On questions concerning study habits a good deal of wishful thinking and self-misconceptions were evidenced. The males and the females both considered themselves to be doing "a little more than the class requires", and also reported that they usually made sure that they finished all assignments beforehand, more frequently than the national norms. They felt that a lack of interest affected their attention to a lesser degree than the national norms, and also they indicated more frequently that they enjoyed writing compositions. They also had a greater tendency than the national norms to "consider a difficult assignment a challenge." The males stated that they thought that "being a fast reader helps me to complete assignments quickly." These responses were again in excess of the national norms. Both males and females note more frequently than the norms that they had missed assignments by not paying attention. Neither males nor femates indicated that "slow reading holds me back in school work" nor that they had a difficulty with English mechanics.

However on what was perhaps a more subtle and revealing question, the males reported more frequently than the norm that they pronounced words to themselves while reading. The females indicated this sub-

vocalizing in roughly the same proportions as the national norms; that is, at least half of the time. This subvocalization is known to slow down reading speed. At the same time, both the males and females stated that they have less trouble remembering what they read than the national sample reported. No difference was shown on having to re-read to understand. In sum, it appears CAM students are either over-rating their abilities to themselves or at least to the investigator, or reflecting a different reference basis, since their abilities in reading and mechanics as shown on the TABE tests are lower than the mean on national norms.

The students' aspirations, i.e., what they expect their occupations to be, were both lofty and revealing. The highest number expected through their education to become lawyers. The next ranking vocational choices were: clergymen-6, entertainers-3, sociologists-2, elementary teacher-1, high school teacher-1, social worker-1, doctor-1, farmer-1, salesman-1, beautician-1, and construction worker-1. Eight expected their occuaption to be different from the occupations listed above, and twelve expected their occupation to be "none of the above." In regards to the particularly high numbers on both the lawyers and clergymen, the Academy teachers suggested that the lawyer is a highly respected man in the black community because of his tremendous power of recourse to the law. The CAM teachers at the same time suggested that the relatively high number wanting to be clergymen, (given their lack of interest in talking to clergymen), likely reflected little religious interest but rather considered it a good position for ecomonic and social advantages.

Two questions were asked concerning attitudes towards CAM Academy. The students were asked what aspects of CAM they liked the best, each student being allowed to enumerate as many as he desired. Twenty-two of the 32 liked the teachers and administrators and their relationship

with students; 15 liked the way teachers and students worked together; 15 liked the way classes were taught; 13 liked the students at CAM; 10, the different materials that the students were allowed to work on; and 7, the subject matter and ideas being learned. From this it seems quite clear, echoing the earlier high evaluation of their teachers, that relationships in general are the most valued aspect of the Academy.

In response to "What goal do you wish to accomplish at CAM?" 22 checked "obtain high school diploma," 15"be able to enter college, 19 "to be able to improve the living conditions of my family now and in the future", "be able to get a better job without a college degree", 10 "to improve my ability to contribute to the black community", and 3 "meet my friends and plan interesting activities." From this it appears that the students have rather concrete goals in mind, particularly the attainment of G E D certification. It seems necessary to separate expectations of the Academy, which appear to be quite concrete, from their general aspirations, which appear both lofty and distant. This is probably a function of the limited time perception mentioned previously.

The Coleman questionnaire was utilized to obtain information on the student's sense of control over his environment. Coleman says (p. 23) "...a pupil attitude factor which seems to have a stronger relationship to achievement than do all the "school" factors together, is the extent to which an individual feels he has some control over his own destiny."[12] On these "fate" control questions, the CAM students gave mixed responses to the answer choices of"agree," "disagree," and "not sure." Approximately 25% of the students, 7, agreed with the statement, "Good luck is more important than hard work for success." On the national norms,

10% of the Negroes answering agreed with the statement, as did only 5% of the overall nation. Most of the students did disagree with the statement, "People like me don't have a very good chance of being successful in life." On perhaps the most explicit fate control statement, "Every time I try to get ahead, something or someone tries to stop me," 13, over 40%, of the CAM students were in agreement. On the national data approximately 15% agreed overall, and 23% of the black mid-west metropolitan 12th grade students agreed. (It should be noted that on many of these questions, there was a very bimodal distribution. for instance, "If a person is not successful, it is his own fault" brought 9 statements of agreement and 17 statements of disagreement.) One of the most perplexing answers was offered to "Even with a good education, I will have a hard time getting the right kind of job." 20 of 32 agreed and only 4 disagreed. The press of the environment where unemployment is high may shape this response.

Perhaps in reflection of some larger sense of ego alienation, 7 of the 32 agreed with "If I could change, I would be someone different from myself." On the other hand, a high sense of efficacy was shown in response to the statement, " Sometimes I feel that I just can't learn." On this one 25 clearly disagreed and only 4 agreed, which is quite lower than the agrement level that Coleman found: 34% of black metropolitan 12th grade students, and 40% for white metropolitan midwest students. Congruent with the national data, 25% (8) agreed with "I would do better in school if teachers wouldn't go so fast," and 20 disagreed. Also, 20 agreed with "The tougher the job, the harder I work." To the question which possibly reflects their self-concept the most, "I am able to do many things well," 30 agreed, including all of the boys.

To summarize these responses it should be remembered that the Coleman data originally found minority pupils, except for Orientals, have far less conviction than do whites that they can affect their own environment and futures. However, their achievement is higher than that in the case of whites similarly lacking that conviction. Coleman found that the students' interest in schools (as reflected in the 30% of reading outside of school) plus their self concepts and a sense of control over the environment, accounted for more of the variation in achievment than any other set of variables (i.e., all family background variables or all school variables together.) Coleman speculated "...it appears that children from advantaged groups assume the environment will respond if they are able to affect it; children from disadvantaged groups do not make this assumption but in many cases assume that nothing they can do will affect the environment. They will give benefits or withhold them, but not as a consequence of their own action."[13]

It appears that CAM students present a mixed showing on these three central attitude factors. Their presence at the Academy indicates interest in school, and they do report significantly more amounts of outside reading than the national norms. Their self-concept as revealed by their stated ability to do many things well was also rather high. However, on a number of these questions, it is at the same time clear that a sense of control over the environment is lacking in some students. Given this mixed picture on the attitude variables, one might expect the mixed performance on achievement variables.

To conclude, the mixed picture brought out in the responses of the students at CAM indicate a definitely lower sense to control the events

of their environment; yet on the other hand they claim a family background with more bookcases and possibly higher wealth. They also indicate a surprising sense of capability in regards to academic performance, i.e., English mechanics, composition, etc.; on the last it is clear that there are many alternative explanations: illusory thinking, a different reference of thinking, etc. The questions are also to be recognized as highly transparent, that is, the students can easily see on many of the questions what are the "right" answers the interviewer is looking for. There also may be just a general recalcitrance to tell some unknown interviewer that your family is having financial difficulties, that you read very little, and that your family doesn't have reading facilities, books, etc...in your home. This may explain the overrating of CAM students of their ability, particularly in the area of English mechanics. The picture is further complicated by the presence of both lofty aspirations in general and concrete expectations from the Academy in particular. There are mixed responses indicating some loss of fate control, but at the same time, a positive sense of identity, personal ability to do many things well, to learn, etc.

Students were asked in the interview to describe the major differences between the CAM Academy and the public high school they previously attended. There were several responses from each student, and these may be loosely devided into four categories: 1) comments about the general school atmosphere, 2) about teachers, 3) about curriculum, and 4) general comments about the school. (See Table I)

What stands out in the students comments are the features that make CAM Academy a distinctive alternative school. The student being in control of his own time, which is interpreted as "freedom,"

the attitude of the teachers and their committment to teaching, the open-ended learning centers, and the close, interpersonal student-to-student and student-to-teacher relationships. In the students' judgement the controlled atmosphere resulting from the above characteristics gives security from aggression and other diturbances. This atmosphere is a salient factor in amking the Academy preferable to the previously attended high schools. Many of these positive traits hinge upon the size of the school as well as its philosophical emphases. The close relationships between teachers and students, and a familial feeling among the participants do much to establish the social climate of the school. To preserve this positive, rewarding climate students are willing to assume responsibility for protecting the Academy from intrusions by disruptive elements. One wonders from these data whether a large inner city high school can function, and whether those that exist should perhaps be decentralized.

Students were asked to comment on what they liked in the Academy, and also what they would suggest from their perspective for improvement. These respnses were categorized into five areas and area presented in Table II in the Appendix. These five areas are: curriculum, cafeteria, expanded facility, maintainance of the Academy as it is, and a miscellaneous category which contains six responses that did not fit into the other four areas. Some students had more than one respons to this question, therefore the total number of responses is higher than the total number of students in the sample.

The student data on their recommendations concerning CAM are replete with statements of students' satisfaction with CAM Academy and the present organization. They especially resonded with supportive statements about their description of teachers and instructional programs. Their main

recommendations for changes in CAM Academy are generally in the areas where the Academy has been hadicapped in instituting changes due to budget. A significant trend in the data is the students' emphasis on the Academy as it operates in regard to voluntary attendance and their being able to control their participation and coming to school. From the data it also appears that students are aware of the importance of accreditation for the Academy in gaining recognition for their studies when they apply for admission to college and for employment. The enthusiasm for the Academy is apparent in the data, and the school avoids many of the problems that now plague the inner-city high school, as students strive to preserve the situation and take action to control many of the student problems that are relegated to teachers and security guards in the public high school. That many of the characteristics which contribute to the favorable climate of the school hinge upon size, is seen in the students' data. Students emphasize the necessity for keeping the Academy a small intimate school where there is a close relationship between students as well as students and teachers. While the school lacks in many respects a setting and equipment that are comparable to the public schools, it is probably better equipped than public schools in regard to materials. Students seem to be cognizant of the distribution of the limited recourses and are not critical of the bareness of furniture and limitation of other physical facilities and appear to willingly trade these for the benefits that they get from the size of the school and the quality of the teachers as represented at CAM.

Curriculum Design

By definition, a curriculum design encompasses a total educational program guiding and directing the efforts of an overall program to produce long range desired effects in student behavior. In contrast to an

instructional design (micro), a curriculum design (macro), is more comprehensive, over arching and tying together the different subject areas through the coordination of the educational efforts. As represented at the high school level, a curriculum design embraces all the subjects and directed experiences that are taught in the school. In most cases a curiculum is organized by placing together groups of subjects designating them as required or elective in students' programs. However, the design can utilize experiences or units of activities in place of subjects. Usually a curriculum design will differentiate between the two components of general education and special interest education. General education consists of those subjects that are required of all students specifically for their contribution to developing citizenship behaviors. The special interest education component will be composed of those subjects which relate to vocational and avocational types of interests.

Generally curriculum designs are compared by examining how they fulfill the constructs of: objectives, modes of transactions, selection of content, scope and sequence of the content, and evaluation. Different designs place different emphases upon how these constructs are carried out. In evaluating a design for effectiveness, data is gathered on how the objectives operate in practice, the analysis of conflicting requirments on students, the overall impact of the design on students' behavior, and whether the design is carried out and operationalized as conceptualized. Since many of the effects of a curriculum design are long range in their consequences for students, effective product outcome measures are difficult to apply since they require following students longitudinally, as well as trying to separate out the influence of the curriculum design from other formative experiences.

Prior to analyzing and evaluating the Academy's curriculum design a short description of the program as it existed in the spring of 1970 was drawn up. Due primarily to the size of the Academy and the administrative emphases, there is close coordination between the curriculum design (macro) and the instructional design (micro) such that the constructs (objectives, modes of transaction, evaluation etc.) in the macro and micro designs are parallel and non-contradictory. The curriculum of the Academy has as its major program subject offerings based on an assessment of the needs of the student population. An immediate need of students was judged to be the attainment of a high school certificate through passing the General Educational Development Test (GED). In addition a secondary aim was to gain admission to college for students, and increase their chances in the employment world.

A large percentage of the Academy students enrolled are very deficient in fundamental skills, and had low academic achievement in their previous school experience. Most students perceive themselves as having a limited ability to succeed in school, although needing the trappings of education, such as diplomas and courses, for admission into better career opportunities and even higher education. Within the curriculum design, then, there is an overall emphasis on providing necessary academic skills and problem solving abilities required for success in work and college. These objectives are set forth on pages 3 and 4 of this report.

The content selection and the scope and sequence constructs of the curriculum design are concerned primarily with the general education component providing fundamental skills and processes in specific citizenship related subject areas of mathematics, social studies, and language arts.

Scope and sequenceare arranged through a three-level classification based on academic achievement and completion of a quantity of work in the learning centers.

LEVEL 1	LEVEL 2	LEVEL 3
A student must complete all of the work assigned as a part of his folder satisfactorly. A certificate will be awarded.	A student must complete all center work satisfactorly and make progress in English according to the scale shown below. A certificate will be awarded.	A student must complete all work in all centers satisfactorly meeting the requirements in Level 2, passing the GED, or have reading and mathematics grades at the 10.5 grade level. A diploma will be awarded at level 3.

Begin at level	Progress to level
4	7
5	7.5
6	8.0
7	8.5
8	9.0
9	10.0
10	10.5
11	11.5
12	12.5

A very limited general science program exists primarily due to insufficient funds to adequately staff it. As existant, the design does not have a component in the areas of special interest education of foreign language, science, art, and higher mathematics. Physical education, vocational training and home ecomonics are not represented in the curriculum at this time, and there does not appear to be much student demand for these areas.

In the content selection construct, considerable individual flexibility is obtained through the use of many instructional materials. Content is selected on the basis of student need to gain command of fundamental processes, student interest, and faculty concern for promoting problem solving. Using a broad variety of subject materials, content

selection is not specified for the learning center nor is it attached to any specific sequence. However, sequencing is more specific in the mathematics learning center than in the other two due to the nature of the logic of the subject matter. In other centers, sequencing is contingent upon student interest, instructors' judgement and applicability to meeting the external criterion of the curriculum design, the GED.

Most of the modes of transaction are described under instructional design (see page 52) and the close knit coordinating among teachers reduces contradictions in the instructional design and curriculum design as they fulfill this construct. While there is much pupil-centered emphasis in the modes of transaction, teachers still serve in the capacity of helping the student assess his work and determine whether he is making progress toward specific goals. One of the few explicit rules of the Academy is that a student must show progress to stay enrolled. Early in the Academy's history, an attempt was made to have the students assert a major influence in controlling curriculum and in governing the Academy. There arose a number of difficulties among the staff and student body which led to the abandonment of student governance as a major factor in curriculum development, and in 1968 a system using more faculty planning and direction was instituted by the staff.

The evaluation of the total curriculum design by the faculty has proceeded on an impressionistic basis but consistant attention to the process of curriculum development has wrought numerous major changes in design. An example of evaluation being used to reshape the program occurred when the learning center concept was evolved as a result of the staff's assessment that scheduled classes were ineffective. In a similar manner, some of the other major evaluations in constructs that

set off CAM Academy as a different curriculum design than other schools, such as: the areas of concentration within the learning centers, the scheduling of lengthy field trips to other parts of the country, and the organization and abandonment of a part-time job program for students resulted from an evaluation of the curriculum effectiveness for this population.

One of the primary influences on the curriculum is the examination given students prior to enrollment in CAM Academy. Although there is no cutoff score for enrollment, and the test is used as a diagnostic tool by the faculty, it does appear to play an important part in the selection of students who do attend the Academy. An examination of the results of this exam for three populationa: 1) those who took the exam and did not enroll, 2) those who took the exam, and enrolled, but did not stay for any length of time, and, 3) those who stayed and completed the GED test indicates that these are three rather distinct populations. Many of the students who came to take the initial exam but did not return to enroll did not complete the test. Those of that group who did complete the test had far lower scores than the other two groups. Those who enrolled but did not stay were almost one grade level below those who stayed and completed the GED. This observation raises the question as to whether the entrance test serves as a screening mechanism discouraging certain students from entering and selecting students of higher academic ability. Thus over a period of time, students who do remain at the Academy generally are of the higher academic ability in the total pool of students from which the school draws. These are only hypotheses, but it does appear that entering academic achievement may also be correlated with motivation to attend school, especially where the school has as a prominent goal

preparing students for college entrance.

A curriculum design has as its central purpose the organization of learning activities to pursue overall goals directed toward influencing the behavior of students. Thus, one finds that the goals of a curriculum design as formulated usually describe broad behavioral patterns: to produce confident citizens, to encourage worthy use of leisure time, to build democratic behavior in all levels of life are a few examples. Central to the general goals is the development of broad behavior patterns that will guide a person's life after the school experience in ways that will help him function in society and achieve happiness as a contributing citizen. CAM Academy's macro curriculum design goals are in general agreement with the macro curriculum design goals commonly found in statements on the purposes of secondary education but the Academy's macro goals differ in being more consistent and operational than those of most secondary schools.

One major operational curriculum design difference between CAM Academy and other secondary schools, is the use of voluntary student class attendance. Attendance is completely voluntary, with no records kept on arrivals, departures, or daily attendance, other than signing into a learning center for purposes of recording a student's work progress. That this is a significant factor in the students' assessment of the Academy's attractiveness became clear in the students' interview data when the differences between the Academy and the previously attended secondary schools were discussed. The lack of attendance requirements was cited most frequently as one important major difference, and of greater significance, the students equated this with freedom. "We are free at CAM" was one statement that seemed to sum up general student sentiments as they spoke about

required attendance versus the voluntary attendance of the Academy.

Voluntary attendance does much to establish the unique climate of the school. Teachers are not battling truency, striving for order to start classes on time, or handling the required load of paperwork that required attendance entails. Moreover, the students viewed it as a mark of maturity to be given control over their time, and to be allowed to decide whether to come to the learning centers and to school. This investigator is persuaded that the voluntary attendance legitimizes, in the eyes of the students, the Academy as an institution devoted to helping them, and one that is not oppressive. Public schools, by contrast, are described routinely as repressive institutions. It is hypothesized that, for these students who do not have much control over their lives, and who are governed by a heavy present-time orientation, the ability to decide whether one attends or does not attend school reigns as a major and valued area of determination in their life space. Due to the lack of records on attendance, a direct measure could not be taken, but from sample counts of students, and the number participating in the learning centers, it is estimated that attendance averages about 60% to 70% a day. Attendance in this range does not differ significantly from inner city high schools which range from 50% to 70% of student body in attendance on a given day, with extended assistance from attendance departments. It must also be noted that students who are enrolled at CAM Academy are very likely those who would have had the poorest attendance records in the public high school.

The effects of the time horizon of students being recognized and respected in the organization of the Academy was checked in the interview with the faculty. The faculty was in agreement that voluntary attendance

was important to students and contributed to the school climate, being interpreted as non-repressive. As a consequence many of the other problems plaguing inner city schools: aggression, drugs, and student antagonism were absent. The faculty attributed much of the absenteeism of the students at the Academy to a personal time horizon which is limited to the present, and not infrequently students were deterred from attendance by chance meeting of friends not in the Academy. Faced with other more pleasurable, immediately satisfying activities, students would spend their time talking and engaging in social pursuits and miss classes for that day. From the student data it appears that time orientation and time use is governed by a time horizon that largely does not extend into a planning for the future. Therefore, activities and friendships that offer present satisfaction take priority over a more distant, vague future that is only a promise.

When CAM students attend college they find that the time orientation accepted by the curriculum approach of the Academy is not recognized in the universities which operate with fixed time schedules and set classes. Subsequently, Academy students experience difficulty in adjusting to regular attendance of classes and the part-time jobs which most of them have to hold in order to attend college. Low class attendance was a major contributor to academic difficulty in the college sample. Students' resistance to fixed time schedules was also seen as a major contributor to the failure of the part-time job program at CAM Academy which was tried and abondoned after a year. The issues of legitimacy in the students' eyes and the fixed time requirements of an academic world and the world of employment appear to be conflictual at this time. A discussion of the reasons for these conflicts and some suggestions for the resolution of the competing demands is carried in the conclusions section, pages 104-106.

In the final analysis, the test of a curriculum design lies in how it modifies long range student behavioral patterns. Does it change and modify the behavior of the students equipping them with the skills they need to become useful, productive citizens? Does the curriculum design attract students and keep them in attendance? With some qualification, CAM Academy can answer "yes" to those questions. Students do attend, many of whom, have been physically and psychologically absent from schools for a large part of their years as students. There is sufficient test evidence that the Academy students do show academic growth at a much higher level and at a greater rate than one could predict from their achievement curves in the past. Further, there is evidence that the students do change considerably their aspirations, and do begin to engage in planning for the future. The curriculum design (macro) with its close relationship to the instructionsl design (micro) avoids many of the contradictions that characterize the macro and micro designs in most public schools and produce student cynicism. There are, nevertheless, paradoxes existing. particularly on the enrollment examination, student voluntary attendance, which need resolution if a more effective curriculum design is to be developed.

Instructional Design

Instructional design is defined as the methodological characteristics of teaching by which a teacher attempts to influence student learning. In a sense, it is the staging of learning experiences. Included in an instructional design are: goals and objectives, selection and presentation of the material, selection of modes of transaction defining the relationships and roles of teacher and materials for instruction, the activities of the students directed to achieve given ends and an evaluation of the success of the plan. The instructional desing in general embraces all

those activities that we frequently label methodology, and which are the specific activities that the teacher is carrying out in a relationship with the learner in a classroom situation. Instructional design activities, because they so intimately define the experience that a student has in school, are sometimes confused as being the totality of a school program. They are the most immediate of school experiences involving the student and teacher generally in a close relationship, and are vitally important in providing students successful experiences in a school. They are not, however, the sum total of the school program. Nevertheless, whenever students discuss school and their experiences generally they will comment first and at length on their reaction to the instructional design, inasmuch as this impinges on their lives more directly than any other aspect of the school.

Moreover, the failure of the instructional design is fairly well documented when the students reject the school and school's experience. This has been a salient factor in the lives of most CAM Academy students and one of the primary reasons for their dropping out. Therefore a good deal of the data gathering effort in this study was directed toward mapping out the instructional design and giving attention to the way it is viewed by students and teachers, as well as practiced in the teaching-learning situation.

CAM Academy has always given a great deal of attention to instructional design, and the early work of the program was devoted to developing teaching that would have appeal for a population of students, who had, in general, experienced failure. There was great concern for failure of the instructional design in the public schools which resulted in establishing as a priority the conceptualization of a design which would increase student achievement

(For a discussion of the relationship of instructional design and personal failure see p.114) Although the history of their efforts is not recorded here in detail, it is important to note that one of the major thrusts in building a new instructional design was the moving away from teaching students in large groups, and concentrating on teaching them as individual learners.

Instructional designs may be placed on a continuim ranging from those which are extremely teacher-centric and pre-programmed, whereby the instructional goals, sequence, materials, modes of transaction and evaluation are planned in advance, developed into a package, and presented as a complete unit to the student. On the other end of this continuim is the student-centric design which emphasizes a relationship between student and instructor from which emerge goals, materials, sequence, modes of transaction and evaluation. The teacher-centric approach has the outward appeal of efficiency through its ease of use with large groups and the controlled features of the learning experiences which simplify changing the curriculum. By contrast, the student-centric approach requires a heavy investment in human resources, low pupil-teacher ratios, and is difficult to manage and organize into instructional packages which are easy to implement. Most of the large scale curriculum projects in physics, mathematics, chemistry and biology have been weighted toward teacher-centric instructional designs.

While there have been many modifications in the instructional design, particularly in the modes of transaction which have been utilized, the original premise of using a student-centric individualized approach has been retained. One of the central characteristics of the innovation in instructional design has been the focus on the student as an individual

learner who needs to have established a ladder of learning responsive to his need to build self confidence as a learner. This procedure designed to increase the students' motivation to engage the instructional design is seen in the following statement of operating principles in the Academy syllabus.

1. The student must have some idea of "where he is" in relation to how much work is expected of him. This is true within each course and in the school as a whole.

2. Success must be built into the student's activities. That is, there must be a well developed hierarchy of success points. There must be sections of work which the student can complete in one class period in order for him to appreciate his own success at completing them. These must be organized into units that he might complete in a week, and those units organized into larger divisions which he might complete in a month or more. All of these divisions must be further organized within the structure of the course as a whole.

3. The student must be allowed to move at his own rate and be encouraged to work as hard as he can. The traditional lockstep class movement is inappropriate for students with diverse interests and abilities.

4. The student must be encouraged to express himself to the teacher and to other students.

5. Materials for a course should be designed with the student in mind: They should not be bland, or innocous but should visually excite the student, even before he opens the cover. The student's own sense of intellectual curiosity should be respected, rather than just that of the instructor.

6. The student must be in an environment which is saturated with educational materials. Every classroom should have book-display racks, so that the books appear with the covers facing out rather than the bindings; walls should be covered with pictures, maps, posters. This is very simple: if there is nothing on a wall then the student can see nothing on it when he looks at it. If there is a map on the wall then the student can see a map when he looks at the wall. Students look at the walls, and we should make this a learning experience rather than attempt to superficially repress it.

7. Anything which the student finds intrinsically interesting should be considered as potential curriculum materials. One must start with students where they are, not where we would like them to be.

8. It is important for an instructor to participate in developing the materials which he will present to the class. Only through this participation will he develop the feeling and enthusiasm for the subject he will be teaching.[14]

In the early instructional planning of the Academy there was much interest and time devoted to programmed instruction. As an approach, it was an outgrowth of a firm belief that it would enable a teacher to maximiz the individualization, while still staying within a knowledge structure of subject matter and guaranteeing competence in the subject area. While there was considerable effort and time devoted to these early efforts, programmed instruction was eventually written off as being too limited an approach, and one which was inadequate as an instructional design if students were to develop confidence in their ability. At this time, there are still programmed instructional materials available and in use in several of the learning centers. In general, though, these materials are available on a student-selected basis. In some areas it was noted (language arts and reading) they do seem to have won themselves a limited, but specific, place in the instructional program. Nevertheless, the results of this effort have documented pretty much what has been established by other field efforts using programmed instructional materials, the materials are not developed sufficiently whereby they will satisfactorily respond to psychological needs of the students when used as a total instructional program. The problems of student boredom and disinterest springing from difficulties in programming are,as yet, unresolved.

Another early area of concern in the instructional design was the incorporation of areas of experience that would have appeal to black students. Introduced early into the curriculum was an area on Afro-American History and a class on Swahili. These efforts were short-lived

but educative for the staff. The Afro-American History course was discontinued when the teacher resigned and there has been no noticeable student interest in reviving it. Student enthusiasm for Swahili waned when they came to grips with the technical, demanding repetition and memorization required to become proficient in a foreign language. These experimental efforts provided data for the staff on analyzing needs of the students as a basis for instruction, and clarified where students were prepared to invest time and effort. These experiences also documented that the problem of content selection was subordinate to the interactive qualities of instructional design and subject matter as a determinate in subjects becoming psychologically significant and motivating to students. The Academy's experience supports the hypothesis that it is unlikely that the teaching of specific subject matter alone will enhance a student's self-concept and develop pride.

Traditional school subjects related to improving employment opportunities, over the long run, maintain their value in the judgement of students. Within these basic skills the current instructional design in use in the learning centers emphasizes a problem solving approach. Focusing on contemporary situations and encouraging the student to use a theoretical approach on applied problems, the problem solving approach becomes the foundation for thinking which can then be generalized and extended to other contexts in daily living.

A third early development on instructional design within the language arts program was the writing workshop. This workshop, essentially the idea of one individual, utilized a mode of transaction that related oral language performance to written language work, and narrowed the hiatus between these two areas of performance.

The principal exercises in the writing workshop were to do voice and imagination. "Man has a voice, and man has an imagination." The former to express, and the latter to interpret to other men. Early work focused on visualizing words and articulating inner experience-imagination, exercises in recall and writing. The written compositions were an outgrowth of these oral exercises and, over a period of time, resulted in gains in visualization and imagery as well as in the mechanics of writing. The teacher reported that reading improvement followed along with writing improvement and several of the students learned to get meaning from the written word for the first time.[15,16]

Within this particular framework of teaching writing, the teacher was able to also concentrate on thinking skills. Unfortunately, the efforts of this writing workshop were discontinued when this teacher left the Academy, and there was no way to formally evaluate the student learning which came out of this writing workshop. However, there were two publications which were produced in the workshop, and these demonstrate quality writing by the students. At the time the Academy was evaluated, the approach to writing and the teaching of language arts was following a more traditional pattern. Standardized test evidence indicates that students are making better than average gains in language arts. Nevertheless, there seems to be some evidence from these publications and in discussion with the former teacher who taught the writing workshop that this experimental approach to writing merits new attention.

After testing a number of approaches to instructional design, the current emphasis as described in written documents is on problem solving approaches. Utilizing a philosophical framework of problem solving

entailing a series of steps, simulations are used to give students practice in problem identification, data evaluation, and hypothesis testing. The problem solving approach used in the social science learning center is described in a student handout and appears in Appendix A.

Problem solving was being utilized by two of the staff members, using newspapers and social science materials. The staff has worked on a number of simulation-type exercises which are used in classes with students. Work continues along this line, but accounts for a fraction of the total instructional time.

The most important component in the instructional design, as far as influencing the pattern of teacher and student relationships in the instructional task, is the learning centers. When the schedule of regular classes was terminated, learning centers with voluntary attendance and flexible time arrangements were established. There are three of these learning centers in the school staffed by four teachers: mathematics, social studies, and a third combining reading and language arts. They are supplied with a range of instructional materials allowing a number of entry points for students to begin learning. In some centers special work corners are established for certain materials.

The reading and language arts center focuses on a program built on paperback books, programmed materials on the mechanics of English, oral language exercises on problem solving developed around newspapers and a written composition program. The social science program uses a variety of materials to examine topics, stressing scientific problem solving and the paradigms of investigation used by the social science disciplines. The mathematics center uses teacher-developed diagnostic tests and

prepared materials, ~~emphasizing individualization of instruction.~~ These learning centers differ from typical classrooms inasmuch as students select and register in a center, spending as much time as they feel they need. There are no classroom time schedules and some students spend several days at a time in one center. The advisor and student do consult on strengths and weaknesses, and discuss which learning center can meet the pupil's instructional needs. There is some evidence that students do, over a period of time, balance up their time within learning centers, although occasionally they do seem to be spending an extended amount of time within one learning center. The organization of the learning centers, how they developed, and how they are used, hinges on several assumptions about instructional design.

These assumptions center around the need for positive reward structures, individualization of instruction, coupled with small group experience, and a curriculum with relevance for personal experience. These assumptions are reflected in the statement of purpose of the Academy and the goals of instruction pp. 3-4.

In general, the usual approach to instruction at the secondary level is use of formally scheduled classes of inflexible time division. Differentiation, if provided, occurs in the assignments of material and completion of levels of lessons. At a more primitive level of differentiation, basic material is assigned to all students, and those students who complete more quickly are rewarded with being allowed to pursue enrichment materials within the limitations of the classroom. The instructional design of public schools tends to be teacher-centric, that is, the teacher does most of the planning, the assignments, and the grading. Furthermore, students traditionally read and recite material in a question and answer format.

These recitation and regurgitation exercises can be conducted verbally or through commercial or teacher prepared materials. In either case, stimuli are presented which students respond to on the basis of the knowledge they have gained from the material they have read. The cycle of this teacher-centric, teacher assignment, pupil recitation has been well documented by research and the patterns of the cycle have been documented as prevailing over a period of fifty years of classroom practice.

In the typical high school instructional design, the written materials key responses to close-ended questions which teachers use initially to introduce students to the materials, guide their thinking and learning, and finally culminate in test exercises which determine whether students have learned. Grades are assigned on the basis of an evaluation of the student in comparison to other students on these tests. The sum of the student's efforts result in the assignment of a grade. Grades for a total class are premised upon some distribution of abilities whereby some of the students get high grades, a few of the students get low grades, and the vast majority fall somewhere between these extremes. Again, research documents that this tends to be quite a familiar pattern of evaluation of learning. As a result of the thrust of the typical instructional design, which is based primarily upon a particularly teacher-centric emphasis and group evaluation, a considerable amount of competitiveness in the class prevails, especially among the top students, and a corresponding level of discouragement for those at the lower end of the distribution is generated. Within a few short years students soon learn their places within this heirarchical arrangement which follows a vague bell-shaped curve, and they either trim their efforts according to what they have come to

to accept as their appropriate places, or, frequently in resignation and discouragement, disengage from the instructional task, carrying the stigma of failure. It would seem that CAM Academy has broken with the commonplace design with its overtones of negativism and is pursuing a very different approach to instructional design.

From the data gathered, a summary was drawn of the main constructs that form the instructional design as practiced at CAM Academy when it was evaluated in the spring of 1970.

1. Individualization of instruction is a primary goal in the establishment of the instructional design. The learning centers and voluntary student attendance allow for the individualization of instruction which is central to providing success experiences for students who come burdened with a sense of failure. Voluntary attendance, along with a large variety of materials, permits students to be self-pacing in their approach to instruction. Teachers are prevented from conducting total class instruction due to a shifting student population; therefore, the instructional format forces use of individualized approaches that provide for students to be self-pacing. The variety and range of instructional materials used and the way the learning centers are physically organized makes the individualized, self-pacing approach possible. Moreover, students through self selection of subject matter engage material at their interest level, and also at the level of their instructional competency, thus curcumventing a problem which is very common in the total group instruction where the middle of the class is the focus and both ends of the continuim are largely ignored. Using as a central construct the individualization of instruction, the Academy does spend more money on materials per student than the average school.

2. Voluntary attendance by the student at the learning center plays an important part in the operation of the instructional design, the establishment of goals, and the mode of transaction that predominates. Through voluntary attendance students gain a feeling of control which is very important in their handling of their feelings of inadequacy and helplessness in the face of their history of past failure in classrooms. Where the student is able to select the learning center he wishes to attend and, within that context, the instructional materials he will use, he then enters the instructional ladder at a point where he feels some strength and competence. Faculty guidance comes through counseling with the student on the work he has produced, and assessment of the student's needs based on his work record. In looking at the attendance sheets at the learning center, one sees that students do move among learning centers although it is not unusual for them at their first enrollment to spend considerable time in one learning center.

3. Student choice of learning materials and the resultant self-pacing are important constructs in the instructional design for establishing the objectives for learning. The wide range of materials available and their appeal to several learning styles permit innumerable points of entry for student interest. There are close-ended materials programmed into small steps at one end as well as completely open-ended materials with the student developing both the type and range of response that is needed. In general, the very directed, close-ended materials are employed with students who are less sure and have more limited skills, while the open-ended materials are more attractive for students who have the fundamental skills, but need to develop

more complex approaches to knowledge. Once having chosen his materials and begun work the student moves along until he accumulates a record of performance which is used by the teacher to assess strengths and weaknesses and map out the individual's program of instruction. One of the strengths of the advising approach is that it can relate direct assessment of what the student can do to materials for future learning; thus, the advisement is not done inferentially from a more limited group of test items that may or may not relate to specific future instruction materials.

4. The objectives and goals in the instructional design remain constant, for the students, but the routes for accomplishing these are multiple. Students are able to follow many paths toward the objectives of the instructional program, and this provides a considerable amount of flexibility for different learning styles, allowing teachers to tap the motivations of students. To become proficient in the fundamental skills of reading, mathematics, and writing, all students do not have to work on the same materials. Different learning styles do assimilate these processes through diverse approaches. Some need direct assistance, with much close attention to correction of errors in processes as they learn. Other students have developed some fundamental skills, and may need assistance on only a few selected aspects. Another group of students need instruction to master these skills to a level where they are used automatically, and can bypass the initial basic instruction. Fixed objectives do give guidance to both the student and the teacher and a range and depth of materials provides for many styles of learning contributes to flexibility.

This intricate relationship-which is generally recognized by educators as being important instructionally, is not generally developed to the high level that exists in the Academy.

5. The goals for instruction are clear and specific and, as functioning within the instructional design, are reinforced by criterion measures that are external to the student-teacher relationship. Many of the students at the Academy are motivated by the recognition that certain desired goals are available, and there are direct behavior processes that will assist them in achieving these goals. The necessity to meet the G.E.D. requirement in order to qualify for a high school certificate gives a very real sense of direction to many of the specific instructional tasks in which students engage. Moreover, the necessity to show progress in order to stay enrolled establishes parameters of individual behavior and assists in maintaining task orientation. Many of the more highly motivated students are persuaded of the necessity of a high school diploma for employment opportunities, since most have experienced difficulty in obtaining jobs. The goals in the instructional design address this concern directly, and it is a construct that has high visibility for the students in their day to day work.

6. The modes of transaction (methodology) are more flexible and numerous than thos customarily observed in high school classrooms. Individualization of instruction as a mode is practiced. But other approaches enter in: teaming, small group work, film, and lectures. Manageable class size permits teachers to be quite flexible in their establishment of relationships which governs the modes of transactions in the learning centers. Ten to twenty students are generally in attendance in the learning centers unless a lecture is scheduled

or outside resource people are appearing. Using a student-centric approach whereby the students are engaged in a variety of activities within the learning center, the teacher moves around assisting students or handling small groups. Of considerable importance is the student-to-student instruction, whereby students introduce and encourage fellow students to try materials and read books. This is facilitated by the unstructured quality of the learning centers. As a mode of transaction it seems particularly important as a motivating force for reluctant learners, and stimulates them to interact with materials without many of the usual artificial motivational devices employed by teachers in regular classrooms. The range of the transactions in use does not let the students wallow in failure, and due to small class size, the teachers know what students are doing, and can render immediate assistance when difficulty is encountered. Students in the learning centers gain a sense of accomplishment as the instructional transactions are designed for them to make progress and failure is limited. Self-confidence and the skills to complete future tasks are established through this process.

7. The construct of evaluation in the instructional design of the Academy is an unusual one, and the evaluation process functions in a manner supportive of the main objectives of the Academy. First, there are no group tests given or intergroup comparisons made among students. The evaluation process is essentially a judging of performance on specific tasks, the results being used to direct students toward the skills needed to pass the G.E.D. Intermediate goals are defined by the designation of the levels of accomplishment, but the levels seem to have but limited importance in the eyes of the

students. In their judgement, passing of the G.E.D. is the primary concern. The evaluation monitering process is carried through the maintainence of student records containing work samples. These work samples, particularly in the area of fundamental skills, represent direct tasks that are related to the external criterion measures that the students must meet for the G.E.D. In the evaluation process, the work samples are evaluated for data which is used as feedback and guide to the students. The spectre of failure often associated with evaluation is removed as the students learn to value the feedback data from the teachers as assistance in planning their future instructional program.

Of equal significance is the relationship that prevails between student and teacher under these conditions, for now they are joined in a mutual task of improving student performance to gain an external goal. The judgements rendered by the teacher in this evaluative process are to help the student in his progress towards the goal, rather than to deny his competance as comparisons and emphasis on ranking of scores in evaluation, frequently do, especially for the lower achiever. This evaluation approach stands in sharp contrast to evaluation approaches generally followed in high school classrooms where comparisons made of students with their fellow students produce abstract scores that assume more importance than data on what is learned.

8. Discussion in small groups within a secure environment is an important mode of transaction that permits both learning of problem solving processes and exploration in the testing of one's identity. Using this mode of transaction, and focusing on contemporary problems

problem solving approaches that have been developed in subject matter disciplines are used. Moreover, practices within the sheltered environment of a small group permits encounters ordinarily too painful to be faced in life to be confronted in a manageable context and ones ability to cope with them tested. Language is clarified, thinking is tested, and priorities are ordered through these small group experiences. The results of this feature of the instructional design program also appears in gains in standardized test scores particularly in the use of language abilities.

The teacher and student relationship which prevails within the instructional design also plays a significant part in assisting students with the goals of identity and establishment of self confidence. Students through their relationships with staff associate with role models who have been successful, and who are as individuals highly motivated to transmit their knowledge to the students. Through these experiences with desirable role models as teachers, through resource people and trips to outside areas, the student's life space is expanded and new career possibilities introduced. There is some evidence that the relationship with the teachers and the expanded field trips have been an important factor in encouraging CAM Academy students to enter colleges.

In summary then, the instructional design uses a wide variety of approaches in its modes of transaction and relates in a complex but successful way, objective modes of transaction, selection of content, material, and evaluation. The further significance of the way that the Academy has developed the constructs in instructional

design and their relationship is discussed on pages 114-117 in the Conclusions section.

Student Achievement

Student achievement was investigated through the use of pre and post test scores on the Test of Adult Basic Education (TABE). One form of this test is administered on entering the Academy and a second form is given in June. Two samples of students were studied:

1. The first sample consisted of those who enrolled and stayed on to take the post test in June.
2. The second sample consisted of those who came and took the test, enrolled for a short period of time, but did not take the post test in June.

The TABE reports three subscores in reading, mathematics, and language skills, which were used in the comparison.

These achievement data provide a picture of students who apply for the Academy, those who enter but do not complete and those who enjoy academic success. Of the group of students who were successful, a total of 23 subscores in reading, 22 subscores in mathematics, and 21 subscores in language was available from the original N of 32 who were interviewed. For the purposes of control and comparison, a sample of 31 students was drawn who had taken the entering tests but did not take the June post test, and had only spent a limited time in the Academy. From the scores on the entering tests it can be seen that these two differ in the initial achievement they bring to the Academy, with those who remain having higher achievement on entrance (see Table).

TABLE

	SUCCESSFUL STUDENTS	DROP OUTS
READING	9.0	8.2 (grade level)
MATH	8.3	7.9
LANGUAGE	8.7	7.5

These scores are given in grade level equivalents, and for this group of students, the scores are to be compared against the average achievement for students of the eleventh grade. Upon admission the students are two or more years below grade level in the fundamental academic skills. The successful group of students had been in attendance at CAM Academy for an average of five months. Any subjects who had been in attendance two months or less were dropped from the sample.

A comparison of pre and post test scores was made to determine the achievement gains for the students. The gains in mathematics and language were over two years and the gain in reading was four months.

Achievement gains for CAM Academy Students
(5 months average attendance)

READING	9.0	9.4	0.4
MATHEMATICS	8.3	10.6	2.3**
LANGUAGE	8.7	11.1	2.4**

** Significant at .01

For purposes of comparison, the reading achievement scores for the schools of the area were obtained. Most of the students had attended these public schools prior to enrolling in the CAM Academy. These data are reported in percentile scores and were transposed to the appropriate grade level score for comparison purposes. Of the three public high schools which seventeen of the thirth-one in the sample had attended, the mean reading score for students in the eleventh grade is 8.3, the thirteenth percentile on national norms. The sample of students who took the achievement

test on entering the CAM Academy, but did not continue in enrollment until the post test was given had a grade level score of 8.2 in reading or about the twelfth percentile. The students who continued in enrollment at the Academy had an entrance grade level score in reading of 9.0, or about the eighteenth percentile in the national norms for eleventh graders. Thus, the students who come to the Academy are at the mean or above for the local area high schools, but stand far below the mean of the national norms on standardized achievement tests where the fiftieth percentile would represent average achievement. In other words, these students rank in the lowest one-fifth nationally of all students in the eleventh grade.

Since the Chicago reading scores were reported for each district at the third, sixth, eighth, and eighth, and high school level, the curve of achievement for students was plotted (see Figure 1). Since the Academy students stand only slightly above the mean score for local high schools on their pre-test, it is probably safe to assume that this curve of achievement is a reasonably accurate depiction of their previous public school performance. In Figure 1 the mean reading scores for each grade level are plotted as percentages of normal progress as set by the national norms of the test. Normal progress (a third grade student doing third grade work, a sixth grade student doing sixth grade work) is defined as 100, and an underachiever is rated as a percentage of the figure. A student making average progress would be on a straight line representing his achievement at the fifty percentile on the national norms. From the slope of the line an interesting widening of the gap between grade level standing and achievement can be observed, with a leveling off at 75% of grade level achievement at eighth grade which remains almost constant up to eleventh

grade. What is significant is the discontinuity of the trend of the achievement curve when the scores for Academy students are plotted on the basis of the pre and post test achievement tests. Over a period of five months, the slope of this line is sharply reversed in mathematics and language skills.

On the reading scores, although visually it appears to be falling, the rate of achievement of four months gain in five months is superior to the slope of progress as evidenced in the Chicago students from eighth grade to eleventh. $\left(\text{slope of } \frac{81.0}{121} \text{ -vs- } \frac{71.5}{121}\right)$ The specific percentages for grade level achievement on the pre and post test scores are: reading, 82 to 80%; mathematics, 75 to 90%; and language, 79 to 95%. These slopes are seen in Figure 2.

Figures 3 and 4 illustrate the reversal of the regression of achievement and an extrapolation of the trend line. A previous line of progress was extrapolated from the public school test data. If the gradients of the achievement curves in language skills and mathematics could be maintained, the hiatus in achievement would soon be closed. Whether this is possible must remain in the realm of speculation.

The central importance of the reading scores was clarified in a separate analysis of CAM student scores on the General Education and Development Test (G.E.D.), a high school equivalency test.

From the interview sample of 32, only two at the time of the evaluation study had taken the G.E.D. test and both failed. Consequently, the students' scores for 1968-69 were used to obtain a sufficient sample. The file contained 313 names. Those who took the G.E.D. were selected from this file and subdivided into those who had taken the TABE test, and those who had not taken the TABE, the latter obviously using the Academy facilities

solely for the purpose of taking the G E D ; a service the Academy provides. Of those who took both the G E D. and the TABE test, the pass-fail ration on the G E D was roughly fifty percent. All TABE scores for students taking the G E D were separated into four groups, males passing the G E.D., females passing the G E.D , females failing the G.E.D , and males failing the G.E D.

Mean TABE Scores of Academy Students Taking G.E D

	READING	MATHEMATICS	LANGUAGE
Total passing G.E D.	10.1 (18)	9.5 (29)	9.5(21)
Total failing G E.D.	8.3 (34)	8.6 (50)	8.1 (38)
Total differences	1.8 (52)**	0.9 (79)**	1.4 (59)**

**Significant at .01

It may be seen that males passing the G E.D. scored higher in all three test areas than the females passing the G.E.D ; however, male scores of those who failed the G E D were lower than the scores of the females who failed. It may also be noted that there were major differences in reading in scores between the males passing the G E D and the males failing. It should be remembered that CAM students had shown the smallest increase in the subtest on reading of the three categories. The students who passed the G E D had significantly higher TABE entrance scores than those who failed.

As a population, it appeared that those who passed the G.E D were a different group from those who failed the G.E.D Interestingly, the scores of the students in the interview sample seem to match more closely the 1968-69 sample who failed the G E D. If the entrance scores of the males failing and the females failing the G E D are compared to the

entrance scores of the interview sample in 1970, very little difference is observed. Also, the total reading scores, particularly the males' scores, are higher for males passing the G.E.D. than even the May scores of the interview sample, and particularly of the males. The 1970 sample from the entrance scores will predictably have difficulty passing the G.E.D. However, the math and language May scores of the interview sample are consistently higher than the math and language scores of the total scores of those students passing the G.E.D. Hence, the score that seems to be accounting for the passing or failure on the G.E.D. is the reading score. This is the area in which the Academy students are making the least progress.

On the basis of the test data available, Academy students are making significant gains over the short range. The pattern of an achievement gap so prevalent among inner-city youth is reversed in two of the areas tested, and slowed appreciably in the third area, reading.

CAM Academy Students in College

Records of thirty nine students from the two graduating classes of CAM Academy of 1968 and 1969 enrolled in 14 different junior colleges, colleges and universities were obtained. These fourteen institutions consisted of five junior colleges, four privately supported institutions of higher education, and five state universities. Of the eleven institutions that were state supported, seven were in the state of Illinois and four were out of state. Out of the thirty nine students listed as enrolled in the institutions of higher education seven filled out and returned questionnaires. This small return was due to the widespread disruption of campuses in the Spring of 1970 which resulted in many schools having difficulty in reaching students. Consequently many of the questionnaires were either not administered or not returned prior to

the students leaving campus. Data was, however, obtained on students through telephone interviews with personnel staff who, in many cases had direct knowledge of the students, and who were in contact with them. The interview data showed that the out-of-state schools had greater holding power for CAM students. There were 17 students enrolled in six colleges and universities not in Illinois. Of this number eight were still enrolled, although at the time of this study some students were on academic probation. Many of these out-of-state schools seemed to have a far more extensive program of supportive students for the Academy students, and it was possible in each of them to identify a staff member who had worked directly with these students.

Of the in-state colleges and universities, including the local community colleges, 22 students enrolled, and of these there was definite information on 16. 12 of the 16 were not in attendance at the time of the study. In some cases, the students in the community colleges may have enrolled, but had not attended classes. In the junior colleges it was exceedingly difficult to find staff who had had personal contact with Academy students and there were no comparable supportive systems for these groups. From the scattered data that are available, it is highly probable that a large number of the students on whom no data was obtained had withdrawn.

Within the data there is evidence which bears on the circumstances and settings in which students succeeded and remained in colleges. Although a greater percentage of the out-of-state students remained in school, there does not appear to be much difference in academic qualifications between out-of-state and in-state students. Perhaps greater differences exist in maturation and willingness to break with the community in which they have been raised. Many of the students have active and extended social lives which are carried on in the community in which they live. This

street life is inimical to academic life, interfering with study and class attendance, and offering attractions that are largely unrelated to academic work. From the findings it is proper to note that whether students succeed or not in the out-of-state school depended upon the extent of committment to a special program. Where a definite program of recruitment of black students had been undertaken, the universities and colleges assigned a staff member to assist these students. These supporting services involved: helping the students select classes in which they would have responsive, interested teachers, assisting them in finding jobs, organizing their schedules, and providing them with tutoring and/or other couseling assistance. Where these supportive services were available, the chances of the Academy students staying in college were enhanced. By comparison, the community colleges which provided no similar support systems had very low rates of retention of Academy students.

One national issue which has surfaced in the past few years is the expressed concern of black students for separate housing and special programs oriented and developed specifically for them. This issue is raised in the data on CAM Academy college students. In several of the out-of-state colleges there were very few black students enrolled, and this was commented on by the students in their responses on questionnaires. However, the strength of this factor in the total assessment of the college experience if difficult to determine since it is confounded by other countervailing variables in the college setting as demonstrated in the following example. On the basis of an analysis of the characteristics of one out-of-state school's student body, one would judge it to be a difficult place for black inner city students to adjust to. Located in

a state with a history of hostility to indigenous minority groups (Indians and Eastern Europeans), the University had almost no black students in its heavily rural student body. Yet the data indicates that this university probably had one of the most successful programs for the Academy students. Academy students were received by the student body and staff of this campus as sophisticated large city students bearing valuable information for the rural students who viewed themselves as naive in the ways of the large metropolitan area. The CAM Academy students who were enrolled in this university were called upon to meet with groups of students, address various organizations in the small comunity, and participate actively in the student organization. Receiving this recognition seemed to assist students in making one of the better adjustments to college life of all students in the sample.

In another university setting, which was somewhat similar to the one described, the black students felt isolated and misunderstood. When they wanted to have their "black only" housing and club they were discouraged bu the university. Consequently, they felt resentful that the university was not sympathetic to them. In thier data there is an expressed need to withdraw from the white society to be "among our own" and to be away from the "five dollar words" that white students use. While the CAM students felt that their special needs were not given recognition, this university did make a major effort to develop a support system for black students. The Academy students appreciated the university representatives who were assigned to this support system, but felt that one in particular had an orientation towards keeping the university out of embarrassment stemming from the activities of the black students. Despite the displeasure voiced by the black students at some of the universities' actions, three

of the original seven were continuing their education. This university had made academic concessions to the students in the special program, particularly in being flexible about letting students continue even though they were on academic probation. One administrator said to the investigator in an interview, "We ought to be willing to give them as much time as they need for completion of their programs for these Academy students have taught us far more than we have taught them, and have made a tremendous contribution to this university."

The dilemmas of black students in a white environment are especially evident when they come from an all-black ghetto. Some of the Academy students became involved in the politics of the black student movement and failed in their academic courses. In the process of political involvement students frequently became disillusioned with the university life, as represented by the subject matter taught in college classrooms, and rejected it as irrelevant. This attitude was especially pronounced in the case of one student attending an in-state university who had a strong academic background and started out well for one semester, after becoming engulfed by the black political movement she stopped attending class, failed her academic subjects, and dropped out of school. The demand for immediate rewards and for an education with "relevant" applications is common among black students. This conflicts with the demands of academic work which stresses concentration on abstract conceptual systems, useful in the future. Most professional and high level careers such as law, medicine or engineering require a mastery of a body of organized knowledge. This entails student withdrawal from present social involvement in order to concentrate on the intangible and more abstract systems which must be mastered if the individual is to be professionally effective in the future. Relevance in professions for students lies in the future

when once a technical mastery of the disciplines which make up that profession is obtained.[18]

The college questionnaire sent to Academy students enrolled in college, employed essentially the same questions as the student interview with modifications appropriate for college students. Their responses shall be represented within the general rubric of input data (family background), study habits and school work, and responses to the "fate control" questions of the Coleman Report.

The students replying to the questionnaire were all males between the ages of seventeen and twenty-two. These were all urban youths, from Chicago proper and previously had lived in large cities of 100,000 or more. Their families were large, with an average of seven children. The students reported an average of six to seven people living at home when they were seniors at the Academy. Six of the seven respondants did not list the father as the main breadwinner of the family (nationwide average --80% of households list the father as the main breadwinner). Fathers were laborers, service workers, or semiskilled workers, or "on welfare." With notable difference from the 1970 CAM student interviews, the college students described their family finances as:

a. Barely able to make a living (3)

b. Have the necessities (2)

c. Comfortable (2)

(In contrast it will be remembered that 75% of the present Academy student interviewees described their families as "comfortable" or "well-to-do".) None of these students lived in a one family house.

The students stated that before college their grades were in the B-C-D range. They used the public libraries little (mean--once a month or less, median --zero.) Their homes, however, averaged one to

two bookcases full of books. Five of the seven stated that at least one of their parents thought college was absolutely essential.

All the CAM college students hope to attain at least a college degree with two planning post-graduate work. Their present fields of study are: business--three, special education--two, music--one, social science and history--one, elementary education--one. They forsee future occupations for themselves as: elementary education teacher (one), lawyer (one), artist or entertainer (one), and businessman(three).

Turning to matters of study and school work, the average student reports studying two hours a day. However six of seven said they took notes on their reading once in a while, or not at all. Most felt they had little or no difficulty writing papers (five of seven). Most also felt they learned how to study fairly well at CAM, and that CAM prepared them fairly well for college. Coursewise, they reported mostly B's in English (five) and C's in Math. Overall, they average their grades as B's. However, three of the seven have been on academic probation. Six of the seven were full-time students at the time of questioning and seem to have felt strongly about it. To the question "If something happened, and it looked like you would have to stop college now, how would you feel?" two answered they would be disappointed, and four checked that they would do almost anything to stay in college.

The "fate control" questions from the Coleman Report attempt to gage the individual's feelings about external factors controlling his life and, at the same time, his inner sense of assuredness in confronting and surmounting obstacles in life. Four of the six agreed or were not sure that, "Good luck is more important than hard work for success." Again, four of seven of the college students agreed or were not sure that, "People like me don't have a very good chance to be successful in life."

On what Coleman considered the most revealing statement, five of seven agreed or were not sure that, "Every time I try to get ahead, something or somebody stops me." On the national sample, only about 13% agreed with this assertion. The most pessimistic forecast considering their college standing was brought out with the statement, "even with a good education, I will have a hard time getting the right kind of job." All seven agreed or were not sure. More positively, none agreed with "I sometimes feel I just can't learn" and five of seven agreed (two unsures) with "I am able to do many things well."

Fairly representative of students now enrolled in the Academy, the students who go on to college are from urban homes with large families and a high percentage of fathers absent from the home. They have high aspirations for a college degree and post graduate work, and indicate that they are doing fairly well (B and C's), although information from college advisors suggest that they may not be doing that well. There may be some problems in self-assessment here. Moreover, a confused picture is presented via the analysis of the Coleman fate control questions. There seem to be indications of felt powerlessness arising from the environmental press of life. Yet at the same time, there seems to be a strongly felt, positive sense of ability indicated in the assurance of being able to do things well and to learn. Perhaps not surprisingly, these fate control responses are very similar to those of the Academy students of the sample of 31, reflecting a certain doubt over their ability to exercise control over their environment and their future.

CAM Academy students find college a difficult adjustment both personally and academically. Academically they are thrown into a situation where competition is stiff, and their limited backgrounds

in science, math, and foreign language are constraints on the programs they can pursue. As students who come from limited backgrounds, they have special needs for programming and academic assistance, if they are to succeed. Furthermore, although given generous stipends by colleges (particularly by those out-of-state) due to their financial straits and lack of family financial support, most of them must hold part time jobs in order to remain in college. The time horizens of these students, which has been discussed at length in the section on instructional design as an important determinant in organizing the Academy, comes into play as the students attempt to adjust to college life and part-time employment. Regular class attendance for them is a problem, and many of the students do not consistently report to their part-time jobs, which jeopardizes their continuing employment. The management of time as a resource, the maintainance of a fixed schedule, and the relinquishment of immediate interests for abstract goals are major problems for these students. It has been hypothesized that these problems of adjustment to time schedules are symptoms of a lack of faith in a future which holds promise of a better life. Our data on the student responses on fate control measures would lend support to this hypothesis.

Yet despite the mixed record, some of the students are succeeding, and this all the more remarkable given the enormous odds with which they start. The Academy staff does find that the college experience, even for those who drop out, is a positive and formative one which enlarges the students perspective, and acquaints him with a range of alternative value systems. In those colleges where a supportive program run by sympathetic staff members was available, several of the CAM Academy students appear to be succeeding in obtaining a college education. There is need to implement similar support systems in the local colleges

if the number of students from the population that the Academy draws from is to be increased. The curriculum of the Academy can move forward in easing the adjustment of the students to college if it succeeds in devising ways to influence the time horizon variable of the students, bringing them into a more complementary relationship with the world of fixed schedules that governs human activities in the university and employment.

CAM Academy - Administration.

The CAM Academy administration consists of a principal who is assisted by the program coordinator for the Christian Action Ministry. The principal is black, and has been with the Academy for two years. The program coordinator is white, and has been with Christian Action Ministry since the beginning in 1965. The two administrators were interviewed on the background and history of the Christian Action Ministry, curriculum and curriculum development, future direction of the school, and other questions which dealt directly with the Academy administration. In the interview, admission standards, budgeting, staffing, and the future program planning were discussed.

The principal who has been with the Academy for one year and has served as acting principal for one year, is in charge of curriculum development. She also has responsibility for other typical administrative duties, budget, ordering of materials, hiring of evaluative personnel, supervising the personnel in the school, and all other phases of curriculum development. She also teaches a class in adult education, and does occasionally do some other teaching in the Academy. The principal also participates in representing the Academy in public, working with neighboring universities, and participating in fund raising.

In the chain of the administrative organization, she reports and is responsible to the Director of the Christian Action Ministry, Mr. Portus.

The Program Coordinator, who has been with the Christian Action Ministry since 1965, works on the Academy program, relating it to other educational programs that are sponsored by CAM: adult education, summer tutoring program, a college entrance program, and employment bureau. Specifically for the Academy, she prepares publicity, represents the school in public appearances, works on new programs, and coordinates the activities of the Academy with other outside groups that have similar educational goals.

In working with the school, both administrators saw curriculum innovation as the principle task and the main reason for the existence of CAM Academy. They spend a major portion of their time in curriculum development activities, and establsihment of new programs. In their discussion of the Academy, they gave a brief historical background of the development of the program.

The Christian Action Ministry as an organization was founded as an aftermath of the riots of 1965 which forced the pastors of the churches in the West Garfield Park area to meet together, and appraise their churhces' relationship to the community. In this self-assessment, one of the major problems that early came to the forefront was the difficult problem of education on the west side. As a result, on February 16, 1967, CAM Academy opened with four teachers and 37 students as an educational unit in a Presbyterian church. Previously, the Christian Action Ministry had operated a tutoring program but found it unsuccessful, and with a small grant from a foundation, initiated a school to replace the tutoring program.

The first half year was a pilot phase in which the Academy experimented with several approaches, but emphasized the use of programmed instruction, a non-graded classroom approach, and student control of curriculum and governance of the school. After the pilot stage, ending in spring 1967, there was further curriculum change in the school year 1967-68 and three initial assumptions underguiding the program were modified or dropped. The administrators reported that programmed instruction was not satisfactory due to dificiencies in content and self-pacing problems. As mentioned previously, student control was dropped because of the attendant problems which made it impossible to run an educational institution. As a result of the curriculum work from September 1967-68, the curriculum development resulted in the broad outlines of the Academy as it exists today.

The basic changes that came about during the curriculum development periods was a change in the goals to emphasize the development of fundamental skills of critical thinking. The principal outlined the goals for the school as now covering several areas: 1) the encouragement of observation and inquiry, 2) stimulating critical analysis, 3) development of problem solving approaches, 4) promotion of adequacy in communication, 5) development of the ability to use creative expression, 6) development of a sense of self-identity, 7) cultivation of appreciation of a variety of life styles. During this phase of the curriculum development there was assistance from neighboring universities on the identification of what constitutes critical thinking, and approaches by which it can be taught.

An important finding from this developmental phase of the curriculum was that certain group processes which are needed for personal development are neglected in a program that is totally individualized. In their

assessment of how students were relating to the program they found that the small group processes were missing and needed to be included in the instructional design. A further finding from the developmental phase was an attempt to build classes on the basis of student interest, and classes in Swahili, psychology, and Afro-American history were started. All of these efforts were short term. Also during this period the staff experimented with bringing many people into the school in order to broaden the students' experiences. Another innovation was to take students on extended field trips in order to give them experience in a wider community, and to increase their knowledge of the existing opportunities. During the first two years, the student groups went to Montreal, Canada, Washington, D.C., and California. The administration and staff saw these trips as having quite an influence on students in broadening their perspectives. Out of these demonstration pilot programs, a way of proceding on curriculum development has been devised, and the goals and the present structure of the curriculum have emerged. Many of the original ideas that prompted the Academy have been revised.

The Academy has never had any formal admission standards, although these were discussed in the founding stages. Instead, the focus has been on trying to kip a mix of students with different levels of academic achievement. The staff has found that it is not always possible to predict the achievement of a student on the basis of their entrance examination, or on the basis of their past academic experience.

The administration was asked to assess the program at the present time, and to reflect upon what they see as the future and direction of development. One change that they see as information abcut the Academy's program has spread, has been the enrollment of students who wish to build

up skills for passing the G.E.D., which to them means the quick completion of high school. Another trend is the admission of students who have not been able to make progress in the public high schools, and who have been referred to the Academy by counselors. While there have been attempts to aid students to prepare for jobs, the emphasis has shifted to fundamental skills and assisting students in developing critical thinking. The original emphasis of helping students to enroll in college has been maintained.

For one year, the Academy did have a program of trying to provide part-time jobs. They encountered a great deal of difficulty in obtaining these and in getting the students to report to jobs with enough regularity to hold them. After a year the job program was abandonded as the staff concluded that if students were to pick up vocational skills, it must be as an adjunct to the program. Under consideration at this time is a program in photography, a program in adult education, and a section in clerical training. It is the belief of the administration at this time, that vocational education probably proceeds best within the context in which the job is held. Under thi s assumption, industry in the area has been approached to develop job training programs. Thus far the Academy has met with limited success in obtaining programs and placing students. In viewing the Academy and its curriculum design at this time, the administration feels that there is a need for a program of supportive services that would enable their students to receive couseling and financial help,as well as training in the academic and vocational skills.

The administrators feel that they have not changed their central goals; but rather made changes in the approaches to achieving them. When the school began there was a burst of enthusiasm for expansive programs to carry these out. Through their curriculum pilot projects they

found that students needed basic fundamental skills in conventional school subjects in order to develop the sophisticated thinking skills crucial to mature adult functioning. Therefore, in their program they have developed a curriculum that holds the students specifically accountable for developing these technical skills.

The administrators were interviewed on problems of attracting, and then selecting, competent teachers for the Academy. While there has been a rather high staff turn over due to salary, a number of individuals do come for experience, and then leave for other kinds of jobs. In the main, there has been a noticeable improvement in the quality of the candidates interested in the Academy. Last school year, 1969-70, four candidates applied for every job vacancy. Interviewing and selection of staff is the joint responsibility of the principal, program coordinator, and director of CAM Academy, and involves a university consultant.

The administrators were asked what they look for in a staff member. They reported that staff members were sought for the Academy who possess a strong sense of identity, and good self-understanding, and who have previously worked out any personal problems. They have found that teachers who have been in and require a very highly structured situation will find the Academy a difficult context in which to work. The student population, which is composed mostly of young adults of varying degrees of maturity, expects to be respected as individuals, and does not relate well to the highly structured environment utilized by many experienced teachers. As a consequence, teachers who are highly structured become cynical as they misinterpret informality for a lack of stablity in the school. The Academy seeks teachers who have a group-orientation to time space, and motion within the school, and who can take advantage of teachable moments that come along in their individual

relationships with students. As has been noted before there is very little teacher-centric instruction in the sense of formally presented lessons, and initiation of direction of instruction does come from the students.

In regard to students, the administrators feel that the school does provide experience for helping them find out who they are. They have observed as students come through the Academy experience that they begin to get a better time horizon, to respect schedules, and develop their own organization on the use of time. They find that this must come from the students' experience and can't be imposed from an outside authority. Students do receive assistance on developing their own academic program as they work with their teachers and advisors. This advisement tends to be informal, and many times is conducted within the context of the learning centers while the student is working on materials there.

As now operating, the Academy does have a very clear understanding with students that they must make progress in order to remain in attendance. This came about as the staff found a need to develop a sense of structure whereby students would become goal oriented within the school. In implementing the program of student advisement and progress, a system of warning slips was set up in which evaluation of student progress was made every six weeks, and students were subsequently notified of their standing in the Academy. After a short trial period, the slips were discontinued and a teacher counseling system substituted in which students were made aware of their standing in the Academy, and notified when their lack of progress is jeopardizing their enrollment. Again, the administrators in their interview affirmed the fact that first and foremost the Academy is an educational institution devoted to assisting the student body to improve their opportunities for assuming adult roles in society.

Given its location and student body, the administration is cognizant of the fact that gang rivalries can be a threat to the Academy. The many adolescents who are not engaged in either school or employment in the area could use it as a place to hang out. In its history, it has not been troubled internally by gang rivalry; control over the student behavior is exercised in the large part by students who protected the Academy against some of the forces in the ghetto which work against the Academy's purposes.

The principal was asked what she sees as some of the special problems confronting the Academy at this time. She listed as one of the major problems the economic press on some of the students who need money for basic life necessities; these students require some kind of financial support in order to continue in school. A second pressure is the street life, which tends to impinge upon the school. Individuals intrude, hustle money, try to hang around, and develop certain kinds of street activities within the Academy. The third area of concern is the need for additional funds and time in order to develop the program further to meet the demands of the student body. The problems of maintainance of the present program and development of additional curricula are at present severe ccmpetitors for administrative time.

The budget for the Academy runs between 75 and 80 thousand dollars every year, and is provided from a combination of sources: foundations, individuals, and churches. The administrators report that the cost-per-pupil is about $800, which is comparable to the average per-pupil cost nationally. The breakdown on the actual cost-per-pupil is difficult as there tends to be a revolving pupil population with some students coming in and staying only a short time; others coming in, completing

the G.E.D. In the middle of the year and leaving; while some students may be attending for longer than one year. But considering the number of students that were in full-time attendance at the time of the evaluation as an indication of the number of students who are in full-time attendance at the Academy, it would seem that $800 per pupil is a fair estimate of the cost. It must be noted, though, that the teaching faculty at the Academy draw roughly twenty-five percent less salary than their counterparts in the public schools which represents a sizable savings to the Academy. Further, the curriculum design within the Academy is limited compared to most public schools, though it does meet the particular needs of these students. A curriculum design which limits its offerings is of course, more economical to finance than one which is more extensive. At this time, given the level of development of the Academy and the population with which it is working, it is difficult to assign a specific cost benefit figure. This difficulty is compounded by the fact that the majority of its pupils would not be in attendance at any school if it were not for the existence of the Academy.

CAM Academy - Faculty

The Academy currently operates with four full-time faculty members who teach in the learning centers. There are three men and one woman on the teaching faculty; two are black and two white. All of the faculty members hold bachelors degrees, and two have done some graduate work. From the data in the archival records of the school, and in the interviews with faculty members, there appears to have been an upgrading of the staff at the Academy in the past three years. The present staff is better trained and holds academic credentials that compare favorably with staff members of the surrounding public schools.

Three of the faculty members were new to the Academy this year; two having taught in public schools previously, and one new to teaching this year. The two members that taught in public schools found it distressing and left to find an environment which would be more to their interest, and would allow them to exercise their independence and judgement on curriculum and instruction. The teaching faculty at the Academy are involved in creating the instructional design, and work together as a team. They spend a considerable amount of their time in planning and preparation of materials rather than in teaching formal classes. The faculty were quite pleased with the Academy's willingness to spend heavily on materials, and to give the staff freedom to develop new curriculum. It was the investigator's opinion that much more time is spent on curriculum development work than is customary in most schools. The teaching faculty is quite involved with their work and devote much of their outside time to the Academy's program. In the interviews one gets the impression that the teaching faculty are receiving satisfaction from their work at the Academy and have a sense that they are engaged in highly significant work. They are not concerned that they did not have many of the comfortable surroundings or larger salaries provided by public schools, but feel that the freedom of working in a highly innovative situation more than compensated for these lacks.

In the interviews the faculty were questioned concerning the students and their observations and beliefs about CAM Academy as a model for reconstituted public education, especially for the type of population that is enrolled at the Academy.

In their interviews the faculty were asked to describe the student population at CAM. They described them as lower-class black students who had been unsuccessful in school, and were now seeking another

chance in a quite different environment. Many of the students see the Academy, at least at first, as a way to complete high school quickly, and are quite interested in taking the GED to fill the requirements. The staff in the main were quite critical of the GED and several saw it as limiting because it is equated by the students with being educated. The staff reported that about half of the student body takes the GED and two-thirds are successful in the first attempt.

On personal characteristics, the staff members described the student population as quite fatalistic in attitude which presents difficulties in getting them to persist in a course of action. The student body does considerable fantasizing about jobs and economic resources, and as one member described them, they entertain many illusions about life outside of their rather limited circle of acquaintances. Due to their life circumstances, one staff member described the students as tense, lacking trust, and suspicious of institutional arrangements. "They might be what you call inner-directed, because their first concern is always,'How does it affect me?...Is there anything in it for me?' Paradoxically these students seem to have little sense of how they influence the group or how the group influences them. It is almost as if everyone had a false front of defenses which masks a tremendous amount of intraversion. There is fear of how someone will respond or won't respond, and this, in turn, seems to affect their relationship to learning in the school. These defenses, I think, are understandable, given the life style cultivated by the backgrounds these students come from."

The staff members also found that one of the outcomes of the Academy is that over time it tends to change these relationships considerably. One teacher commented, "In general students treat each other here very

humanely. I rarely hear any student tearing other students down about their work." Faculty saw students as wanting in the main to be very helpful, and there is much student-to-student instruction in helping others to be successful as they work on classroom material. The students are economically poor, and the staff agreed that the dominant press of the economic factor does influence student behavior towards the future and the school. In the interviews and the learning centers the staff manifested empathy and concern for these students. The staff felt that they were being successful, and that CAM has an approach to education that works with these students. One staff member said, 'We don't force students to do anything, but rather act on the belief that students can learn, and I believe that is what makes CAM Academy different from the public schools."

Staff members were asked about the possibility of replication of the Academy program in the public schools. Although there was some disagreement, most members felt that the size of the school was important in establishing a sense of community among the students and for close work relationships with the staff. On the basis of size, they were rather pessimistic about being able to run a large public high school in the same way. Nevertheless, this was viewed to be more of an organizational administrative barrier than an absolute restriction in school operation. There was some feeling that it is important to have black administrators in a school of this nature as well as representation on the teaching staff. One teacher stressed the need for providing the students with a number of culturally different models on the faculty, as the students are narrow and limited in their exposure to people. He illustrated with several anecdotes the way in which students interpret differences as rejection of themselves, and tend not to relate to individuals who are different from them on even rather

superficial grounds.

Again the importance of student control over time was reflected by the staff. "Our kids feel such freedom in the Academy environment, they don't consider themselves part of a formal system, hence they don't feel guilty about not attending. As a result, when they do come they don't have a deep seated need for getting even. I do believe, however, that if we had more average kids it might make a difference in the climate of the school, and might increase the motivation of our students as they would have other student models to relate to. Our students in the main have had a history of failure and act accordingly when they approach instrucional activity, but I want to emphasize that we have no discipline problems here as a result of the way we structure the school and operate with students."

The teaching faculty were questioned on whether the Academy curriculum should be extended longer than the one year for students. There was some disagreement, with one faculty member feeling that it would be helpful if they could have students for a full four years; however, the students' ages were seen by the faculty as a major problem. The students are 17 to 20 years old upon enrollment and four years is a long period of time for them to be involved in school, especially since most of them are having to provide some of their support and feel the pressures of needing a full-time job. One staff member quite eloquently rejected the idea of extending the Academy two or three years as a regressive model that would promote student dependency on the institution. She described the institution as being warm, friendly, and sheltering, and did not want students to become acclimated to it, and use it as a crutch. She described the need for the students to widen their horizons in order to develop their perspective and get out into a broader community. Her

feelings were that there should be a definite nine-month limit on students' enrollment. The important contribution of the Academy was, in one faculty member's estimation, the building of self-confidence and exposing students to a broader stimuli. Once this process was begun, the student should then be shifted over into other environments. One faculty member observed that the greatest change in his students occurred in those who were removed from the West Side and had gone to college. In summary, the staff generally agreed with the comment, "As things now stand, I don't think that we could extend the schooling years at the Academy. We couldn't expect the students to stay for more than nine months, for at their age this already seems an eternity. To extend the time, I expect, would have an adverse effect on retention."

The Academy staff felt that fifty percent of the students have the ability to be successful in college, providing they can be given the necessary skills and confidence. There is a sensitivity among the staff of the importance of these students being able to move into positions where they could command economic wherewithall to buy many of the material things they are now denied. Some of the staff saw extended education as being a demand that was unrealistic in the students' perceptions and present desires for satisfaction of economic needs. As one staff member said, "I'm persuaded that college is a fantasy thing with many of these students, and they can't see themselves succeeding and becoming active and productive members with access to the material benefits that they have so long been denied." The Academy has persuaded a sizable number of students to consider higher education, and has succeeded in placing them in college. As has been seen, though, from the data on higher education, their chances of success are dependant as much upon a number of factors

within the colleges and universities as they are upon the lind of background CAM Academy can give these students in a nine month period.

The faculty were asked to comment on the ways they felt the Academy had influenced their own conduct in interacting with students. There is general agreement that they taught differently than they had in other situations, particularly being much more student-centered and doing less formal teacher-centric instruction. Their preparation consisted in large part of getting materials, and working with individual students in helping them to assess and plan their instructional program. As a consequence, much of their teaching activity involved planning rather than direct teaching; a main difference in teachers functioning at CAM as opposed to teachers functioning in a public secondary school.

In speaking about the needs of the Academy, the teaching staff was cognizant of the need to develop special interest education for these students, particularly in the fine arts and science. Another very real need is to have transportation available so students can have more outside experience and become more widely acquainted with many of the resources in their city. There is also need for, as one staff member pointed out with several illustrated examples, petty cash funds to alleviate the dire needs of some of the students who are unable many times to buy food. Some of the teaching staff discussed the need for developing a food facility within the school through using the lunch room in the building that is not operative. Some of the staff felt that if the Academy were able to meet some of the students' urgent needs and assist them at particularly troublesome points in their lives, it might be able to retain students who begin instruction and then leave. From their study of the students who leave the Academy, the ones who remain are those who

have more solid home ties and who are receiving some assistance from their parents. Particularly crucial for girls who have children is having some support from a day care center so that they can leave their children in order to come to the Academy. At the present time, the Academy is unable to provide any financial assistance to their students.

CAM Academy as an Alternative School

To develop a general picture of the status of alternative schools at the present and for the purposes of direct comparison with CAM Academy thirty-six assorted schools, which seemed representative of the movement were contacted by letter. Of these thirty six schools, a dozen replied. The lack of response is, of course, indicative of the short-lived nature of alternative schools. Many of the letters were returned unanswered and unopened with listings of "no such address, moved, no longer here." The schools contacted were those which had been involved in the conference funded by Johnson Wax and held by CAM Academy in the fall of 1969. The following general picture was drawn from the responses of these twelve schools.

One of the offshoots of the political and social ferment of the late 1960's was a great and deep-seated frustration with regimentation in educational institutions. Out of this sense of frustration, teachers, parents, administrators, and students attempted numerous forms of alternative, experimental schools which in general centered around the idea of motivating the student by simply letting his curiousity carry him along. These schools had and have a number of similarities in their objectives, their curriculum, their methodology, and to some extent, their evaluation or lack of evaluation thereof--many of the schools being so new as to obviate competent evaluation at this time. Without going into

an extended discussion of the weaknesses of institutional public education, which one may find in a number of sources, this section attempts to identify some of these underlying similarities in objectives, curriculum, and particularly in methodology.

In general, the alternative schools are small, usually less than a hundred students, founded very recently, i.e., within the last three years, and emphasizing racial and social class interaction. In the nature of their formation, not surprisingly, many close after only a short period of operation. Harvey Haber, founder of the New York School Exchange, estimates that two or three new alternative schools are born every day, and that, similarly, every day one dies or is similarly transformed. Of the schools which responded to our request for information on their operations, none had been founded earlier than 1966. For purposes of comparison to CAM Academy, we shall discuss only those schools which were primarily for high school dropouts of disadvantaged economic status, i.e., not a private school of high tuition, even if that sort of school included a racial mixture. Also we exclude the numerous elementary schools that have been formed as an alternative school.

The schools responding typically considered themselves as demonstration schools, in the sense that they provided laboratories for new approaches to education. These approaches, when found effective, would hopefully bring about changes in education throughout the urban areas where the schools are located. Central to this hope was a desire to provide an opportunity for meaningful integration of people across racial, economic and religious lines. One of the central objectives was concommitantly to establish community control with particular involvement of parents. More generally, the common desire was to prove that innovative and humanistic

education will work for all children in reversing the negative cycles triggered by present obsolescent educational institutions. For example, the Store Front Learning Center in Boston states as its central premise, "Under ideal circumstances people will learn if there is an ample and exciting variety of intriguing and intellectual stimuli placed before them."

The schools vary in their objectives from being intensely college preparatory, such as Sophia in St. Louis, to vigorously vocationally oriented, such as the Vocational Village in Portland, Oregon. In both cases, most tried to create a framework of guidelines for students and staff which more or less explicitly guides their relations. There is usually a strong reward system used to develop leadership skills among young men, and to nurture a peer pressure which esteems rather than disparages education. In general, an objective was the reversal of the student's previous subjective experience of education as one of consistent failure, by providing the most positive of learning environments. The entire program is usually structured to provide students with continuous success. All of the schools canvassed emphasized in one way or another the objective of a more motivating mileu for educational inquiry.

Fully all of the schools' methodologies repudiated grading and normative evaluation as a method of measuring progress, and emphasized rather the individual's proceeding at his own rate through academic areas. The forms of education appear to be extremely free and open, emphasizing discussion and incorporating workshops, field trips, tutoring of one another, tutoring by teachers, tapes, and other forms of electronic education. The schools attempted to offer supportive services such as

counseling, job placement, emergency funds, and college admission aid. Usually attendance is not recorded either daily or by class. Youths are encouraged to proceed wherever intellectual excitement carries them at the moment, although most do emphasize certain basic skill courees: math, English, reading, some history. Most also offer courses which are aimed at being relevant to the particular community and culture such as Afro-American History and Spanish instruction. Generally classes are unstructured, and the teachers' role is urged to be one of nurturing discussion and aiding individual student progress instead of lecturing.

The curriculum programs usually have a dual emphasis. One is toward basic skills as previously mentioned and the other is toward what we might call high interest personal development programs. These are for example; Creative writing, art, film making, dance, chorus, shop, thearee and other general activities aimed at stimulating the youth to explore his interests as they emerge. The main external criteria of progress used, in fact, the only external criteria of progress mentioned, is the General Educational Development examination.

Some schools have had notable success particularly in the area of vocational training by going out into the community and studying on site. The Vocational Village School employs a work-study program whereby the student is in class for four hours a day and on the job for the remaining four hours. This has the advantage of meeting the needs of the students from the disadvantaged home. In general, most of the schools are quite eclectic in drawing on many and varied resources within the community.

By way of evaluation, most of the alternative schools provide little data beyond subjective impressionistic statements of feelings. In some

of the schools a battery of diagnostic tests are used upon entrance which can help in the channeling of the student to the levels of instruction in which he may move ahead and achieve. None of the schools, however, report the aggregate results of these tests. In general, there is very little effort at formal evaluation of processes. Evaluation takes rather the form of constant group review, involving the students, teachers, and administrators. Some of the schools' student boards take charge of all policy formation and academic review including the grading of teachers on their effectiveness. As mentioned previously, the newness of these schools in itself limits evaluation. It should be noted that there is movement away from the formal evaluation procedures used in most educational institutions. For example, L.E.A.P., the Lower Eastside Action Program in New York City has the students decide en masse when they are ready to get their diplomas. After two years only one student was judged ready. LEAP states, 'We have been more concerned with our own processes and discoveries than in our 'results'." In some schools other informal progress readings are taken on such things as the number of students that drop out of the alternative schools, those that are college preparatory, and the number of students that have enrolled in colleges.

A few comments are in order concerning both the origins of these schools and the implications they carry for the future. In general, most appear to have been formed either through the zealous vision of a particular individual or through local groups of parents coming together in frustration over the education their children are receiving. If it is possible to observe a difference over a limited period of time, it appears that the earlier schools, i.e. 1966, were highly integration oriented. It was felt that meaningful integration could best be

achieved through racial mixing and interacting of age groups and classes. The more recent schools, however, are much more community oriented, tend to be less concerned with integration, and at the same time seem to be more frequently the result of parental groups getting together to form an alternative to the present educational forms. This sets up a conflict which appears to be already present, if unstated, between a community run school in which the more "conservative" and/or "conditioned" attitude of the parents limits the desires of the founders for experimental and innovative programs. Not infrequently the founders come from outside the community, and there is an explicit internal/external conflict built into the direction of some of the schools.

With regard to CAM Academy we find that it has many similarities to the generalized picture of the alternative school movement. It is small, recently founded, 1967, and sustained by a strong personality's vision. Most of the students are dropouts and demonstrate sub-normative reading capabilities, if not functional illiteracy. The Academy similarly sees itself as a demonstration school in the hopes that it may affect the public school system. As compared to the alternative schools considered in this report it appears that it is more directed towards college preparatory and general academic education with vocational instruction being extremely limited. Compared to the other schools, CAM has a low student to teacher ratio - CAM's active attendance being roughly about thirty, or forty on a daily basis; the student-teacher ratio averages about ten to one. CAM's orientation is towards its community, West Garfield Park. Typically CAM as an alternative school was formed through the action of a person who has exercised leadership to draw together numerous community resources. In an attempt to provide an unstructured day for the students

learning centers were set up and the student with an advisor draws up a schedule of work for that day. This is fairly consistant with the free forms of the alternative school. In the non-compulsory attendance policy that prevails, approximately 300 students took the exam to enroll in CAM last year, roughly 100 took classes for an extended amount of time with approximately thirty to forty in attendance on a given day. Some areas in which the Academy is not yet developed but which have been explored by other alternative schools, are vocational training, mass media exploration through the use of TV and films, nutritional aid, and family contact. In general it appears that direct parental involvement at the Academy is minimal except through the Board of Directors.

As a demonstration school CAM Academy is beginning to clarify the way major constructs in its curriculum and instructional designs are operationalized. This is necessary if they are to promote the adoption of design innovations in the public schools. Due to the particular population their is need for a job counseling program which would allow students to attend CAM and at the same time provide for themselves economically. Although previous programs experienced many difficulties, the need is great. If more funds were available, CAM might meaningfully expand its program to make fuller use of the resources available at universities in the area of Chicago, library facilities, recreational facilities, and resource people (especially college students).

One of the dilemmas that confronts the alternative school is that of finances and accreditation. Most alternative schools are extremely hard pressed for funds, and to stretch funds often means limiting curriculum, enrollment and supportive services. Most of the funds provided for these programs have been through experimental seed-funding, i.e., Office of

Opportunity, foundations, churches or private sources. The common source of private school funding - tuition - is unavailable since the primary characteristic of the student body is poverty. Over the long run alternative schools must gain guaranteed financial support. Without accreditation the possibility of state funds is indeed remote unless the state initiates a program to fund experimental schools and demonstration or satellite schools for the major urban areas.

The testing of new instructional and curriculum designs has proceeded in an environment free of the constraints that surround much of the curriculum development activities of the public schools. To expand the innovation and make it more broadly available is a task that will require greater organization of financial resources and community groups. CAM Academy is engaged in such a task at this time, with the EDUCON project which unites the Chicago Public Schools, major corporations, community groups and the Mayor's office in a joint effort at school improvement. The accrued experience of the Academy will serve as a basis for proposed reforms. As an alternative school, then, CAM Academy is breaking new ground in its organizing major interest groups to improve education on a broad scale.

CONCLUSIONS

The conclusions section is organized around the objectives of the evaluation. These objectives carried on pages 4 and 5 of this report were seven in number. In brief they were: (1) to describe and define the curriculum model, (2) to identify the effects of the Academy on the students, (3) to specify major effects of the program and what were producing these, (4) to explicate the major constructs in the instructional curriculum design, (5) to examine the effects of learning in relationship to input variables and costs, (6) to examine the effects of the Academy on the public schools, and (7) to analyze the potential relationship between this alternative school and a teacher education program. Gathering data from a number of sources, partial information on these objectives was obtained. Much of the information concerning the Academy's operation that was previously based upon scattered impressions was clarified. The assessments on the basis of a final criterion of success must necessarily remain tentative as longitudinal data were fragmentary and on some aspects of the school, unattainable. The arrangement of these conclusions does not indicate priority or emphasis. In the main the conclusions focus on the instructional and curriculum designs of the Academy as they influence student behavior.

Sources of Student Responsibility for Learning

The central emphasis in the curriculum design and the instructional design in CAM Academy is the lodging with the student of major responsibility for his learning. The modes of transaction, the selection and use of content, and the procedures of evaluation all are directed

toward this end. As an example, the evaluation that is used is primarily a monitoring approach for the day to day instructional activities in which the teacher gives feedback to the student for his efforts. Moreover, the organization of the materials is based upon monitoring the pupils learning and giving him definite types of objectives so that he is aware of the progress that he is making. The standard seen as a final criterion measure of success is the GED which is administered by an outside authority, and represents very clearly in the students' eyes the accomplishment of a high school education. Having final evaluation based upon an outside criterion measure where the learning center teacher is not involved, does allow for a student-teacher relationship, focused on a mutually accepted goal, to be developed without any of the negative features so often associated with classroom evaluation. The student and teacher are free to work together on the accomplishment of the student's goal, and the teacher is never placed in the position of being the final arbitrator of the student's future through issuing grades. This is a positive factor in insuring excellent student and teacher relationships within the Academy. One cannot help but be impressed with the student reaction in their interviews to the teachers and staff of the Academy.

The significance of the GED in serving as an outside criterion measure to give guidance to the curriculum and aid the structure of the teacher-pupil relationship cannot be underestimated. Many of the faculty members in the school were sharply critical of the test in shaping the students' perceptions of the function of the Academy and they did not seem to recognize its usefullness in establishing the

structure of their relationship with the students. Using this outside criterion measure relieved the teachers of having to exercise global evaluative judgements of the students in order to establish whether they have completed adequately the course of instruction. As a result students and teachers were left free to attend to an open instructional climate. The students recognition of the significance of the GED is seen in the popularity of practice test materials designed to train the student to pass this hurdle. Their persistance with these materials emphasizes again that nothing succeeds like having a clear cut goal, even when the goal has notable limitations.

The Academy, with its emphasis upon student responsibility, and a curriculum and instruction design that permits open-ended instruction is a forerunner of what may be the significant change in design in the next decade. The public high schools of the United States have recently come through an era when pupil perceptions of what is important in learning and their assumption of responsibility to act on these perceptions in an instructional program has largely been denied. An emphasis upon a program of studies that met the requirements for specialization in college programs dominated the secondary school curriculum in the 1950's and 60's through the influence and authority of the James Bryant Conants.

CAM Academy, as representative of the alternative school movement, is undoubtedly a forerunner in reversing this trend. Recognizing that a significant part of motivation is the acknowledgement of the emotional characteristics of the learner, and allying this with a curriculum which engages his interest makes a significant contribution to the learning "recipe", one which is at the heart of the new thrust in curriculum. Particularly for a given segment of the population, the

emphasis of a discipline centered education oriented to college entrance requirements and ignoring the learners' emotional and maturational development, has led to students' rejection of the school. The malfunctioning of the school curriculum with the learner has redirected attention to personality factors in curriculum building. CAM Academy's experience in working through many attempts at realigning curriculum content and organization for relevance to the emotional and maturational development of the students is a major contribution in curriculum design from which other schools can profit.[19] They have demonstrated a curriculum design that promotes students' assumption of responsibility for their own learning.

Student to Student Instruction

Within the instructional design operating in the learning centers, CAM Academy has utilized much student to student instruction, which aides reluctant learners and becomes a source of stimulation to get them to interact with the materials. Student pressure and interest can and does operate within the Academy as a far more effective punishment-reward system than any teacher can devise. The openness of the learning environment which has been described previously, allows students to interact with other students, thereby helping them discover and work on appropriate instructional material. It is not known at this time how much direction in instruction is determined by the student to student guidance. but it is believed to be considerable. Also other aspects of the school environment are determined by the students who operate within very few administrative restraints. The constructive climate that characterizes the Academy is condusive to maintaining a

a social context whereby previously reluctant learners can assume responsibility for not only their own learning but also for fellow students".

The significance of Criterion Referenced Evaluation

The instructional design within the Academy has gone through a number of modifications, but central to its operation has been the use of an instructional system that allows the student to know where he stands and when he is making progress. The small class size and the close relationship between students and teacher does allow the teacher to develop an elaborate system of work samples which serve to monitor students' work and assists them in knowing where they stand in their achievement. In the teacher data, as well as in the student data, there is evidence that the students did not view this relationship on evaluation as an adversary relationship, and the teachers were exceedingly careful to avoid making comments that were negative or that indicated failure. The teaching staff was extremely sensitive that they were working in many cases with students who have had a past history of failure and cannot face further negative criticism. Several teachers said that they never made a negative comment on papers and delivered their evaluation orally in order to insure that these were not viewed as attacks on self. One of the very deep seated problems that have been cited in the school is the conflict in the student-teacher relationship when the positive reward system which is necessary to keep a student motivated is competing with an evaluation system which is seen as negative and rejecting. Witness one college student who had developed a positive relationship with an instructor during the course but received a low grade on the final test: "I thought you were my

friend but now look what you've given me on this test." This is indicative of the conflict that generally emanates when a positive reward system built upon a mutually supportive relationship is interfered with by an evaluation system requiring the teacher to make judgements based on comparisons of students. CAM has avoided this by using an outside criterion measure and emphasizing monitoring evaluation within the Academy.

This investigator believes that much of the early enthusiasm for programmed materials was based on the staff's belief that a rewards system and self-evaluation supposed built within the materials took the teaching staff off the hook on making judgements on student work. Undoubtably use of programmed instruction has had much of the same appeal that the assembly line has in industry, but, as the CAM Academy has found out, it is not progressed to the point where it can take over the major instructional tasks of the teacher.

Curriculum Design and Future Program Plans

The main emphasis in the instructional program at this time is toward developing command of fundamental processes in reading, math, and language arts. Given the input data on the students and low level of achievement, this is probably defensible at this time. Within this framework, there is some use of problem solving approaches, but recognition also by the faculty that many of these skills cannot be developed until students have the fundamental ability to read, write, and compute using the basic processes. In the overall design, however, the emphasis on the development of fundamental processes does not add up to a direction for a coherent program of behavioral changes in the students directed by some long range goal. There is, of course,

a humanistic orientation to the teaching of these fundamental processes that carries over into the students' lives. This is seen in changes that come about in the students as they go through the Academy's program; their elaborated defenses soften and their interpersonal relationships improve.

There is evidence that accomplishment of long range goals may hinge upon further major shifts from present behavioral patterns. Some of these present behavioral patterns are attributable to the limited boundaries of the students' life space and the Academy does need to give consistent attention to other types of experiences such as the long range field trip , use of community resources, and models of professional people who come into the school in order to provide students knowledge of alternatives. Personal defenses that are handicapping to students, particularly in interpersonal communication, are readily apparent in a number of the students' responses in the questionnaire data as well as in the interviews. Living a life filled by illusion, avoidance of grappling with immediate problems, and inability to realistically plan for the future on the basis of their strengths, is a characteristic behavioral pattern within the Academy that needs attention in the curriculum design. It is suggested that CAM Academy study rather closely the students who have been successful in college and in employment, and assess if their program has had a differentiate impact on students who have been successful and those who have not.

The emphasis on academic skills, within a framework of personality development based upon a humanistic interpretation of the right

of the individual to chose and decide, has been particularly successful. The Academy staff recognized that the individual makes this choice anyway, but under an authoritarian rather than an open environment the student behavior tends to respond destructively. The Academy has been successful in developing a relationship with students that evokes positive behavior. The emphasis in the program, though, has on the past attempted to expose students to alternative environments outside the school. Recently there seems to have been some limitations on expanding student environments and the curriculum design seems to be more restricted on these experiences in the past year.

Efforts should be made to continue the field trips, for there is evidence that these were exceedingly valuable growth experiences for students. Areas of experience with other student groups should be sought to aid future adjustment to college environments where a range of socio-economic and personal styles exist. On overall design there is need to expand the curriculum in certain subject areas, science particularly. The science program at the time of the evaluation was very limited and needed both more attention in the total program and a defining of content. Of importance in any curriculum design work is the strong organization for curriculum development that exists among the staff. Therefore with this powerful vehicle for curriculum development existing, it becomes a matter of establishing some priorities for effort. Expanding the science program, and giving attention to other academic needs of a college level population should be high in the priorities list.

Time Horizons and Planning for the Future

One of the more interesting findings that has come out of this study has been the relationship of the time horizon of the students and the curricular structure of the school which respects that time horizon and thus, avoids many of the problems that schools have traditionally encountered with compulsory school and class attendance patterns. The honoring of a time horizon and the ligitimization of the school is probably very closely bound up in the students' minds and is a relationship that is promoted by the open-ended curriculum established on the basis of the needs of the population of students enrolled at CAM Academy. Nevertheless, the time horizon that is respected in this setting does have implications for future education and the world of employment. One author has suggested that the major variable that separates classes in the U.S. is the time horizon orientation rather than money or jobs, and that money, job, or places of living are symptomatic and a function of the time horizon which governs and motivates the individual.[20] Working within the constraints of the time horizons of the students, who utilize present time orientation and immediate needs as a first priority, does legitimatize the school, and allows it to operate as a conflict free environment for these students. Nevertheless, there is evidence to the effect that it does not lead these students to accomodate to the fixed time schedule which is followed and used by most social organizations. This lack of accomodation does show up in the data in the difficulty of CAM Academy students in meeting college classes and assuming job responsibilities.

There are a number of questions which are posed by this time horizon factor, not the least of which is whether more time at the Academy would develop different behavior patterns. As had been previously noted in other studies, time horizons may be governed by the ability to ascertain and believe in a future that holds promise of improvement - particularly economic improvement. One of the teaching staff in discussing this problem insightfully related a number of the reasons why the limited time horizon may exist as it does:

> "I believe time is only important for people for whom a sense of time pays. These students' existence has not depended upon a clock; that is, they operate pretty much on their own schedules, and time exists only in the immediate. There is no meal schedule set up for most of these students which is a natural time divider for most of us. Time for them exists roughly on a night and day basis, without much finer discrimination. Moreover, there is not much of a concept of time saving, of planning to utilize segments of time. This comes out very clearly when attempting to discuss the future with these students, and help them with career planning. When requirements or definite hurdles that in the future they must meet are presented and they are asked to examine their behavior now to prepare for this future demand, generally the response is, as to most things that have a future orientation, 'When the time comes, I'll make the adjustment."

To modify this behavior pattern which may be the result of the economic demands that govern the life styles of these students is a very longgrange effort. There is recognition among Academy staff that modification comes slowly, and first efforts require the students to be able to concentrate on short tasks and organize themselves. There is also a difference in how fixed this time horizon is in an individual. As one teacher said, "It seems to me the more loose a person's life is, that is, the less he is organized around meals, family, or around any other time variable, that tend to put us on a schedule, the more difficult it is for him to become acclimated to a fixed time schedule." There is a major question whether the students can be reoriented from an organic time system to the more monchromatic

clock adhered to by a technological society. Correlated with the adjustment to a fixed time schedule is the question of whether the individual can be institutionalized to the point where he operates within a social organization on terms other than his own. Few slots in the world of employment permit an individual to determine his own schedule based exclusively on considerations of personal interest and convenience. Therefore, the Academy needs to address itself to the problem of influencing students' time horizons to increase their ability to cope effectively with college and a job.

Academic Achievement at the Academy

On the specific measurement variables measuring academic achievement, CAM Academy has shown considerable success. Significant gains in mathematics and language arts, and limited gains in reading, as measured by the standardized tests, are recorded. The Academy seems to be particularly successful in mathematics and language, in the latter closing the disparity between the considerable capacity that the students show for oral language and their exceedingly limited capacity for written language. Some of the more interesting documents in the archives in the Academy on past curriculum development work are the results of the writing workshop which seemed to be deriving methods to bridge the gap between the oral and written language. There is considerable evidence that there has been some very good work done in the writing workshop, as seen in the two magazines that have been produced by the Academy. There is still quite a serious gap in reading achievement and the gain is very slow, although some advancement is shown over previous achievement in this area. The seriousness of the lack of growth is heightened when one considers that low reading skills are a major contributor to academic failure in college.

The cause of limited progress in the development of reading can be only speculated at this time. Some of the materials being used are of a programmed type, directed toward specific skills, whereas for many of these students, the need may be for more complex reading skills than are carried in these materials. Students' responses to questionnaire data on the amount of reading they were doing would not appear to be accurate with regards to their achievement scores in reading. As with some other student data, responses are conditioned by the overall assumptions explained by staff members: that it is an embarrassment to admit that you are not educated and that you are poor. The staff will need to analyse the procedures used in the learning centers on reading, and to develop a program for reading that is more effective in the light of the cruciality of reading to future education.

Learning Centers

The intimate relationship of student to teacher in the learning center appears to be a prominent factor in promoting student responsibility for conduct, and maintaining an environment that is free of many of the social problems that harass large high schools. When one examines the assumptions underlying large high schools: economic efficiency, subject specialization, and the offering of a breadth of subjects, these seem neither compelling nor sufficient justification for maintaining sizable institutions in the face of their seemingly insurrmountable problems. Having large student populations where students remain strangers contributes to problems of security and social control. The persistence of the low record of achievement overpowers any argument that economic efficiency mandates large plants. The needs of the students for proficiency in fundamental skills and citizenship behaviors rather than specialized

subjects, should set the major curriculum focus. The data from the Academy's experience would hold that a small intimate environment where positive relationships can be established between students and technically skilled, humanistically committed teachers, is essential for this population of students. These are precisely the elements which are missing in the large inner-city high schools. Our data leads us to conclude that few, if any, large, inner-city high schools should be built! A desirable pattern of organization would probably use smaller schools, like the Academy, with specialization for students provided at some larger common sites, or in on-the-job training.

In many inner-city high schools, it is difficult to make the case that an educational program exists; phantom classes, chaos and disruption, low achievement, unavailability of teachers (even neglecting to examine the aspect of competency) and a high percentage of dropouts are prevalent characteristics.[21] Certainly new structures of organization need to be tried so that suitable education for a sizable segment of our population can be provided.

The learning center, with its individualization of instruction and curriculum allowing for continuous progress for each student is a contribution to instructional design that is notably lacking in most secondary schools. This organizational concept provides the structure necessary for open-ended instruction, as well as freedom for the student and teacher to develop an effective relationship. The functioning of these learning centers is heavily contingent upon having classes in a very flexible time arrangement. The learning center as the instructional unit for the Academy was arrived at through testing different ways to organize the instructional pattern and it appears to be based on a defensible theory

of learning and instruction. The question arises, though, whether it can be generalized to larger schools, i.e., to be incorporated into a large public school program. If learning centers are established as central to an instructional design, students would have to work with advisors daily to plan their schedules, and also be allowed the option of moving from one center to another on their own volition. In a large school the problem of social control and security would largely preclude this type of arrangement. Certainly a different organization, organized around smaller units of students, would need to replace the large assemblage of students that is now the practice.

Instructional design, which emphasizes concept development, along with problem solving skills, is in need of more refinement in some of the learning centers. Diagnostic procedures are being used to guide student progress in fundamental skills. While the Academy has developed a number of interesting simulations and approaches, the evaluation aspect of the problem solving approach seems to be particularly weak. At the present time, in evaluating students' work, teachers pass judgements on the basis of the students' making progress on the use of certain concepts. The criteria are not established nor agreed upon, and it appears to the investigators to be inconsistent at times. Better evaluative procedures are needed to direct the teaching of problem solving. A similar evaluation problem exists in the learning center's reading program. It is hypothesized also that perhaps the Academy staff does not have clear objectives for reading instruction, and allow the instructional material to carry the bulk of guiding the student and moving him along a line of conceptual development, when the materials are limited to a few skill development areas. Further, there may be excessive concentration on the

weaknesses of students, rather than the utilization of strengths in reading in planning instruction with the individual student. These hypotheses can be empirically checked and evidence gained could be used as a jumping off point to redesign the reading program. One possible route is to build a tighter model of construction, particularly with regards to concept development, using an analysis of concepts in the instructional materials and relating them to different levels of cognitive complexity. Measurement of the student's progress in attainment of conceptual complexity can be devised once goals are defined.

Selection and Retention as it Defines the Academy's Student Body

In many social agencies set up to render services to a large pool of individuals, a selection mechanism becomes built into the functioning program. Although unplanned and unintentional, the selection mechanism does limit and circumscribe the population the agency serves and over the long range frequently refocuses its mission.[22]

The Academy has exercised a screening procedure in its selection and retention of students, but the dimensions of the criteria operative in this process are unknown at this time. The number of students that come and take the exam, and those who finish at the Academy are roughly in a ratio of 4 or 5 to 1. There is need to undertake further study as to what is operative in determining whether students come and stay. It is helpful to conceptualize the selection as operating at eight different steps. (See Figure 5) The investigator, on the basis of limited data, believes that each step represents a different pool of students in terms of academic and personal characteristics. For documentation on some of these differences see the section on academic achievement, student body at CAM Academy, and students who go on to college in the chapter

on findings. That there might be some changes in the Academy that would shift and increase retention of some of these students is only speculative. However, it seems that even such an organizational shift as not giving the entrance exam as a requirement before enrollment in school might bring more students into the school, and might encourage more students to remain. In an examination of the records of those who took the exam but did not return to enroll in CAM Academy (Step 1, Figure 5), it was found that their incomplete responses would indicate that they may be less competent in fundamental skills than those who enter. There was also some indication that they suffer from test anxeity. The entrance examination is not used for screening, as no level of performance is required. Yet students may receive the impression that their reception as students is dependent upon their performance on the entrance examination. If the Academy is to continue to emphasize college preparation, there may be need for this type of screening in order to maximize the use of its limited resources. However, if it wishes to expand its pool of students and encourage more to enroll, it may well to delay the entrance examination and use other informal diagnostic procedures to determine the instructional level of students. Fear of testing situations and reminders of failure in those contexts may be a major deterrent for a segment of these potential students, who chose not to return after taking the entrance examination, even though it is used as a diagnostic rather than a screening instrument. Using the test at a later date, and using open enrollment policy with no formal enrollment instruments administered would be one way of testing the hypothesis on the effects of the entrance examination as a screening device.

The interview data of the teaching staff suggests that the students

who complete up to Step 6(See Figure 5) are those who have the least financial problems, and most family support. The support takes the form of financial resources, housing provisions, and encouragement to further their education. Students who lack this support system were much more likely to dropout, and those who did not enter, we suspect, lacked these factors. To be successful in the academic world requires, for most individuals, some security in immediate needs of food, housing, and clothing. The emphasis in the students' responses in the desire for a lunch room at the Academy may be indicative of this as an immediate concern (See Table II in the Appendix) The staff data on students cited numerous cases of severe economic straits, such as no lunch, and no prospect of the next meal, in some cases, affecting student performance. In order to attract and hold another segment of students, who drop out of public school and the Academy, there is great need for providing in some form, basic necessities. Could a program be instituted which would provide students with experience in food trades and also a low cost or no cost midday meal, using the available facilities? Certainly such a program would require a solid curriculum and financial base. We recommend that such an exploration be undertaken.

For females at the Academy who have small children, a day care arrangement is needed. Perhaps they could be given priority in the CAM pre-school that now exists.

The above problems are ones that stand out dramatically in the data. They also speak to need for more counseling services and follow up on student problems which interfere with academic performance. Therefore, a high priority in the immediate future should be a full-time couselor whose efforts would be directed toward longer range program

planning in the Academy. This planning would be based on an analysis of student needs, as well as the desire to provide students with direct assistance on immediate problems that affect their work in the Academy program.

The Academy, Staffing, And Cost

So far the Academy has been able to find an adaquate supply of dedicated teachers even though they offer a salary that is about twenty-five percent lower than the public schools. If one were to expand the Academy's enrollment or develop more sites, staffing would be a problem and the demand probably could not be met without added cost for salaries.

What is of greater importance with regards to the comparison of the Academy with the public schools and its basic effect on education, the Academy has demonstrated over a period of three years that it is successful in dealing with a student population that is largely unsuccessful in their engagement with the public high school. The success of the Academy is based upon its innovations in instructional design, and not in small part on its size. Where the Academy has been particularly successful is in motivating through the instructional design and in avoiding many of the social control and security problems that now plaque the inner-city high school. From their experience, it would suggest that large schools, particularly the educational park concept, are indeed questionable, especially for inner-city youth. What is needed is a close relationship between teachers and students, and the large school, with its complex scheduling, multitude of classes, and impersonal atmosphere, in the main defies the forming of these relationships. The findings do suggest, speculatively, that smaller schools,

numbering probably a hundred students, and correspondingly smaller staff may be a more viable organizational pattern. Schools organized as small units would be primarily concerned with developing fundamental education and utilizing the community resources in many aspects of the education. The rationale that has been used to promote the complex, large, modern, high school on the basis of need for a differentiated schedule of specialized subjects is largely undercut by any study of the educational and personal needs of the student population. An organization which would use as its basic educational unit the small school, utilizing even rented facilities, and when necessary, moving the students off to specialized learning centers when they are ready and able to pursue the educational aspects of their career would seem to be at least an alternative that should be tested. Under these conditions, building costs would be relatively low--staffing and curriculum costs higher.

The estimated per pupil cost at the Academy of $800 compares favorably with a national cost figure of $834.[23] Paying comparable salaries with public schools would increase this cost considerably; however the increase in salaries would be offset by a lower building cost. At this time, it would seem that smaller Academies could be operated at about the same cost as the present large high schools.

Instructional Design and Personal Failure

One of the major contributions of the Academy to the practice of education has been the evolution of an instructional design which brings into an interlocking, mutually supporting, transaction relationship the learning of academic subject matter and the development of the individual's sense of personal competence. That the self image can be

enhanced or denegrated by experience is a fundamental assumption in personality theory. The contribution of the school experience in general, and the role of instruction in personal development has been suggested by a number of educators. Working with students who have been negatively influenced by cultural forces due to color prejudices, and that have been largely unsuccessful in school, the Academy has accumulated a valuable catalogue of experience in designing a learning environment for these individuals which evidences that these negative personality defenses, though advanced, are not irreversible. How these failures in instructional design are allied to personal development and the Academy's contribution to building a successful instructional design for students is probably the single most important generalization to come from this study.

In the failure of the instructional design, the learning process is stymied as students refuse to engage in transactions with the instructional materials. Believing that they cannot learn, and desiring to forestall experiencing failure, students go to extreme lengths to avoid confronting failure situations: truancy, disruptive class behavior, and lethargy are the most common symptoms of the syndrome. A number of authors have documented the significance of success or failure in employment as a dominant factor in gaining a concept of identity from which one's sense of self flows and becomes central to shapings one's life style in all spheres of interpersonal relationships. However, few seem to relate this to earlier school experiences,[24] the first recognizable work experience in a child's life. That a child is cognizant that school is an organized routine which gives direction and purpose to life, demarcating a recognized stage of maturity and establishing self identity through the transactions of instruction, is readily observable to anyone

who has been around small children starting school and noting their reaction to early instructional experience. Viewed in this light, the individual's experience with instructional design becomes a formative experience shaping the later adjustment to employment and other interpersonal relationships. The failure of an instructional design to successfully teach a specific arithmetic skill can have dire cummulative consequences as seen in this passage recorded by Liebow in his study of black streetcorner men:[25]

> I graduated from high school(Baltimore) but I don't know anything. I'm dumb. Most of the time I don't even say I graduated 'cause then somebody asks me a question and I can't answer it and they think I was lying about graduating...They graduated me but I don't know anything. I had lousy grades but I guess they wanted to get rid of me.
>
> I was at Margaret's house the other night and her little sister asked me to help her with her homework. She showed me some fractions and I knew right away I couldn't do them. I was ashamed so I told her I had to go to the bathroom.

The shaping of the self image is clearly evident and springs from the individual's experience with the instructional design, and he acts accordingly in situations to confirm this early self mantle evoking negative reactions which consistently reaffirm what he believes about himself. Thus, the early formative influence of an instructional design may be greater than the employment experience in later life and, in effect, establish the prevailing pattern for adult work experience. The closing off of opportunity, the withdrawal from active confrontation of new experiences, the routinization of responses (I'm dumb, I'm incompetent) are learned defenses built by failure and humiliation when the child is found wanting in early instructional transactions. Elaborated and more subtle in adults, the symptoms earlier described as avoidance defense mechanisms in the classroom, which are directed to prevent engagement with experience psychically painful, come to

dominate the employment pattern: absenteeism, frustration-aggression resulting in abrupt termination of jobs, and avoidance of responsibility.

The Academy has addressed itself through its instructional design to many of these symptoms, already well advanced in many of the students. Through attention to a class organization, a skillful utilization of materials, application of forms of evaluation that reward instead of punish, and use of modes of transaction that lower the defenses which had cut off the individual from learning experiences, CAM Academy has pioneered approaches to surmounting many of the seemingly unresolvable problems that afflict the inner-city high school youth.

CAM Academy as an Alternative School Model

As a model for other alternative schools, CAM is unique [illegible]. It embodies the main characteristics of the alternative schools: open ended instruction, new relationship roles for students and teachers, emphasis of student responsibility for learning through student-centric instruction and direction of instruction toward specific objectives of academic and personal development. The one important added component in the CAM Academy model is the establishment of a school within a braod administrative framework which gives it a staying power which most alternative schools have lacked. Operating within the Christian Action Ministry umbrella, the Academy has achieved broad based support in the community. The Board of CAM has maintained an interest in the Academy, assisted through providing advice on the community educational needs and supported it financially. The relationship of the Academy and the CAM Board is a study in effective community organization devoted to improvement of community life through active engagement of the citizens. It has been estimated that

alternative schools have an average life time of 18 months. The Academy's ability to survive and become a viable school is in large part attributable to the supportive framework of the Christian Action Ministry.

For a number of reasons, the Academy should seek accreditation from the State Department of Education. The act of being accredited would legitimatize the innovations in the eyes of public schools and dispell the belief that the structure of the state code precludes program experimentation which produces major changes in the curriculum design. Having an accredited status, the program could experiment with removing the G.E.D. requirement, which has a strong influence on the educational objectives of the students and influences their planning. An important consideration in accreditation is the avoidance of substitution of fixed time course requirements for the present criterion-referenced achievement standards. If accreditation can be obtained only at the cost of installing a fixed time unit, Carnegie or otherwise, which is used to indicate student achievement, then much of what the CAM Academy has learned will be lost.

As an alternative school, CAM Academy has a number of resources to contribute to a teacher-education program. It has demonstrated that innovations are possible. Removed from the constraints, real or symbolic, which operate in the public high school, the staff has been able to experiment with and modify their curriculum with great rapidity over the past three years. The experience of the Academy can serve an important purpose in teacher-education programs by demonstrating a concept of open education that does not presently exist in most high schools.

The learning centers, as they are devised, do represent a model of instruction that might be used with some modification in classrooms, despite the organized time schedule in the public high school. CAM Academy can be viewed as a pilot project providing evidence that there are conceptual approaches based upon sound curriculum and learning theories that do work with populations of students that have rejected the curriculum in the past. CAM Academy hopefully is beginning to remedy some of the past failures in instructional design and to point toward improved educational practice with long range significance for many inner-city students. As an alternative school it has succeeded in establishing an educational ecosystem uniquely directed toward dealing with students whose need for education is great, but whose experiences have conflicted with traditional approaches.

In summary, CAM Academy as an alternative school has demonstrated that education is still a viable means of improving the life chances of a sizable student population in the inner-city. From its experiences with curriculum and instruction, the Academy has found that the design of these must change markedly from traditional practice in order to engage this particular student body. What CAM Academy has to contribute from their catalogue of experiences are general outlines which suggest the direction for successful practice. What is yet to be defined is the way to achieve large-scale implementation. The task ahead is large, but the road will be easier due to the significant efforts of the Christian Action Ministry, the Academy, staff, and students over the past three years.

FOOTNOTES

1. Wagner, Jan. CAM Academy Syllabus. October 22, 1968. Mimeograph, unpaged.

2. Stufflebeam, Daniel L. Evaluation as Enlightenment in Decision Making. Columbus Evaluation Center, The Ohio State University, 1968.

3. Coleman, James S. Equality of Educational Opportunity. Washington, D.C.: Department of Health, Education and Welfare, Office of Education. 1966

4. Flanagan, John C. Project Talent. Pittsburgh: University of Pittsburgh, Project Talent Office. 1964.

5. Proshansky, R. and Newton, "the Nature and Meaning of Negro Self Identity" in M. Deutsch, I. Katz, and A. Jenson (eds.) Social Class, Race, and Psychological Development. New York: Holt Rinehart and Winston, 1968.

6. Treat, R. D. "The Color of the Experimenter as a Variable in Experimental Research with Negro Subjects". Journal of Social Psychology, 1954, 40, 281-287.

7. Webb, Eugene. Unobtrusive Measures: Nonreactive Research in the Social Sciences. Chicago Rand McNally, 1966.

8. Lagarsfield, P., Sewell, W., and Wilensky, H. The Uses of Sociology. New York: Basic Books, 1967.

9. Liebow, Elliott. Talley's Corner: A Study of Negro Streetcorner Men. Boston: Little, Brown, 1967.

10. Project Talent, op. cit.

11. Coleman, op. Cit.

12. Coleman, op. cit., p. 23

13. Coleman, op. cit.

14. CAM Academy, Syllabus, op. cit.

15. Notes on Interview with Paul Pekin, May 19, 1970.

16. Pekin, Paul. Our Future Teachers' View, Mimeograph, 1968, unpaged.

17. Hoetker, J. and Ahlbrand, W.P. "The Persistence of the Recitation." AERA Journal, 1969, 6 (2), 145-167.

18. McPherson, J. A. "The Black Law Student", The Atlantic, 1970, 225 (4), 93-100.

19. Silverman, C. "High Schools that Work: Murder in the Classroom, Part III" The Atlantic, 1970, 85-90.

20. Banfield, E. C. The Unheavenly City: The Nature and Future of Our Urban Crisis. Little, Brown, and Company: Boston, 1970.

21. Stern, Michael. "Truancy Overwhelms the Truant Officers Here", New York Times, February 2, 1970, 1:3.

22. Miller, S.M., Roby, P. and de Vos van Steenwijk, A. "Creaming the Poor". Transaction, 1970, 7 (8), 38-45.

23. New York Times Encyclopedia Almanac, 1970, 517.

24. Rainwater, Lee. "Work and the Identity in the Lower Classes", in Everett C. Hughes, Men and Their Work. Glencoe, Illinois: Free Press, 1958.

25. Liebow, op. cit. p. 55.

APPENDIX

THE SCIENTIFIC METHOD

The scientific method is a way of thinking about problems and solving them. The general procedures used today were worked out by many men during hundreds of years. These steps are: 1. observation, 2. stating the problem, 3. forming the hypothesis, 4. esperiment, 5. interpreting the data, 6. drawing conclusions

OBSERVATIONS

The scientific method is not hard to use. Anyone who is curious about nature can use it to try to find answers. The first step is observation. The student notices things about his environment. He looks, hears, and touches things around him. This may involve all or just a few of his senses.

STATEMENT OF PROBLEM

An outgrowth of his observations is the recognition of a problem or question. For example, a student notices the dew is the same as rain but there is less of it. He states the problem by wondering whether there is any connection between the rain, dew, and the amount of each.

FORMING THE HYPOTHESIS

In forming a possible explanation, or hypothesis, the student considers what he knows of the problem. Both dew and rain are water. Where did the water come from? There are not always clouds when there is dew. Sometimes it rains when it is warm, but it is usually cool when there is dew. From an airplane a cloud looks like fog. The hypothesis--or hunch--might be that water is carried in the air and condenses into drops when the temperature falls.

OBSERVATION AND EXPERIMENTING

The student used observations in stating the problem and in forming the hypothesis. It is now time to test the hypothesis by experimentation. An experiment might consist of placing an ice-filled metal pitcher above a teakettle standing on a stove. A foggy cloud appears above the teakettle. Part of this cloud forms drops of water on the pitcher. A piece of warm, moist grass sod placed under the pitcher will soon have drops of water on the top of it.

INTERPRETING THE RESULTS (data, facts)

In the experiment, the student realizes, the top of the grass gets colder than the bottom, and the water condenses out of the air onto it. The data of the experiment have been interpreted. Dew and rain have the same source. Water can come out of the air.

DRAWING CONCLUSIONS

The conclusion might be that dew and rain both came from the air. The experiment showed that water can come from the air. Sometimes near the ground. Big drops may fall as rain, or small drops may form and make fog or dew.

TABLE I

STUDENT PERCEPTIONS OF DIFFERENCES

BETWEEN CAM ACADEMY AND PUBLIC HIGH SCHOOL

When specific comments were made by more than one student, the frequency is indicated in parentheses. An attempt has been made in some cases to retain the students' wording and the subtle difference between similar responses.

1. School Atmosphere

   A. Climate in Classroom

      1. More freedom(at CAM) - come in and go when you are ready - no need to worry about getting barred from class (4)

      2. More freedom (at CAM) - nice school here to go to

      3. Smoking is permitted (at CAM) (4)

      4. Eating permitted (at CAM) (2)

      5. Attendance is not mandatory (at CAM) - tardies are not punishable errors (3)

      6. Speech is free and unhampered (at CAM)

      7. If a student fails it is because of himself (at CAM)

      8. More freedom to do work required (at CAM)

      9. More freedom to do what you want (at CAM), unless you really want help

   B. Degree of order in environment

      1. The system (at public school) is wrong. Lots of activities to distract you.

      2. Most students have better social relationships with each other (at CAM) - lack of group rivalry

      3. CAM much more quiet, makes for better studying activity than at previous school.

      4. Not so many distractions (at CAM) so you can keep your mind on your own work

TABLE I (continued)

C. Type of authority in school

1. Police atmosphere (at public high school)

2. Gang problem and corruption in school (at public high school)

3. Free atmosphere and no police to give you trouble (at CAM)

II. Teachers

A. General teacher characteristics

1. CAM teachers are dedicated and concerned about the future of their students, whereas public school teachers don't give a damn whether the students attend or not, succeed or fail. Their main objective is their pay.

2. Atmosphere at CAM totally different from regular high school. Teachers are more freindly and interested in individuals (at CAM). Teachers in public highschool have matronly attitude, expect you to pull yourself up on your own. This the most important point because it (CAM attitude) makes for more conducive learning by student. Relationship between student and teacher better for learning. No great difference between students here and in high school. Relationship between students and teachers quite different.

3. Teachers are more difficult to get along with in regular high school. Some teachers carried racist attitudes and don't understand what's going on. Teachers didn't show genuine interest in students.

4. Teachers are friendly and try harder (at CAM).

5. Teachers don't bother you (at CAM)

6. Better relationships between teachers (at CAM) (2)

B. Emphasis of teachers on individual assistance and aid to pupils in learning

1. Basic courses (at CAM) same as in high school but taught different. Teachers relate on an individual basis (at CAM). More helpful to students. In high school, if you get lesson, O.K; if you don't, too bad.

2. Teachers take an interest in individuals (at CAM)

TABLE I (continued)

3. Teachers are not guards (at CAM)

4. Teachers are more helpful (at CAM) and will even stay after class if you like

5. Pressure from teachers (public high school) - teachers don't care. Teachers here (at CAM) are for real, tell you how it is plain and simple.

6. Work is not very hard (at CAM) but not easy. Teachers explain things better (at CAM)

7. Classes seem to get taught better (at CAM)

8. Teachers try to get a point across (at CAM) rather than stuff it in you.

9. Teachers here (at CAM) use profanity in front of students, but they get along better with students because they take more time with individual students.

C. Quality of student teacher relationships

1. Better relationships with teachers and students (at CAM) (many)

2. Teachers are called by their first names (at CAM) and the communication barrier is bridged. (3)

3. Teachers are nice, similar to friends (at CAM). Don't show authority, the student's opinion is valued.

4. Closeness between students and teachers (at CAM)

5. Fewer people (at CAM) - teacher-student relationship better.

6. Instructors at CAM are better and have better rapport with students (4)

7. Students treated as adults (at CAM)

III. Curriculum and Teaching

A. General curriculum

1. Courses at CAM are more highly advanced than at regular high school. The work you do (at CAM) is basic, but in high school it's more like a review of elementary school.

2. Classes are better (at CAM) (students the same)

TABLE I (continued)

3. Learning more (at CAM)

4. Not much difference in curriculum from high school, but you get more out of it (at CAM)

5. You don't have classes like CAM (at public high school)

6. Same courses as in high school, but here you get a better understanding

7. Since attending CAM, student has become more aware of himself.

8. CAM teaches you what you need to know and not what they want to teach you. They let you write on subjects you want. (2)

9. The students at CAM attend each day the classes they want, stay as long as they deem necessary, and do what they want in this class regardless of the day's assignment.

B. Teaching

1. Don't try to make you learn, learn if you want to (at CAM) (2)

2. In class the material is taught different.

3. Public high school was not properly equipped; the patch-work techniques of the equipment and teachers don't help students or prepare students for the future.

4. Individual help at CAM (2)

5. The atmosphere at CAM is relaxed one where student can function and learn at his own speed

6. Pace student at his own rate (at CAM)

7. (Student's) ability to work on your own (accepted) (at CAM)

C. Specific subjects mentioned

1. English department (at CAM) is tops and they help you very much

2. Math is more advanced (at CAM) than in public high school.

3. Read more here (at CAM).

TABLE I (continued)

IV. General Comments

1. Prejudice at other schools
2. CAM is a better type of school for a black person. The atmosphere is more together for people of our culture.
3. Better here (at CAM) all around (2)
4. Everybody friendly (at CAM)
5. Everybody is here (at CAM) for the same thing, and that's to get out of high school.
6. More competition than in regular high school.
7. Atmosphere (at CAM) more pleasant.
8. Pleasant atmosphere at school (CAM) but the school should be bigger. More students who are out of school and in the streets should occupy their minds at CAM.
9. Principal is friendly and relates with students (at CAM)
10. Regular high school has more classes which is good.
11. Studying habits are about the same, (student's) always studies on his own (so) doesn't make any difference what school he attends.
12. No rules at CAM make it worse.
13. Make friends better at CAM.
14. The students don't abuse the privileges here at CAM.
15. Students at CAM are younger than students at prior high school.
16. Administration and progress at CAM is wonderful.
17. No fighting at CAM (3)
18. No hanging around in washrooms or loitering in hallways (at CAM)

TABLE II

STUDENTS' SUGGESTIONS FOR THE ACADEMY

A. Curriculum

1. There is need for a broader curriculum, especially in the area of music and shops.
2. We need to have typing classes.
3. We need to include an athletic program.
4. We need to have more teachers in different fields.
5. There is need for more room space.
6. More classes that are relevant to people in the community are needed.
7. There is need for improvement in the basic courses specifically related to the G.E.D.
8. We could use a few more college preparatory courses. While teachers do help prepare for college, it should be a specific part of the curriculum just like other classes.
9. More extra-curricular sports activities

B. Open cafeteria

1. Open the cafeteria and use the equipment
2. The cafeteria should be open during lunch time
3. Open the cafeteria and lounge so that students can use them
4. Open the cafeteria
5. Would like the gym and the cafeteria to be open.

C. Expand facilities, increase enrollment, accreditation

1. Make the school a little bigger, otherwise the school's O.K.
2. Expand the Academy to a larger building and a larger staff.
3. Make CAM a bigger school with more teachers than we already have.
4. Make CAM a bigger school.
5. Make it a little bigger and more adequate facilities.

TABLE II (continued)

6. Make it a bigger school and let it be known to the public that it exists.

7. Make it larger with more classrooms and students

8. I would like it to be accredited, but completely satisfied with all other aspects.

9. Make it a high school and get it accredited.

D. Maintain the present, no changes

1. I wouldn't make any changes in the Academy

2. If any changes are made, organize on the same principles and same teachers.

3. Satisfied with the way CAM works teachers, administrators, students, counselors, and the subject matter.

4. I'd keep it like it is.

5. No changes

6. The school is acceptable to me as it stands now - no changes

7. I wouldn't make any changes, I'm satisfied with the way it is

8. Not many changes, personally I'm satisfied with the courses that are offered

E. Miscellaneous

1. Cut down on the traffic of students in the hallway.

2. CAM should have a grading system so I know where I stand

3. Better facilities, more books, and a full-time counselor, and deal with teaching only

4. Change back to the '69 schedule where we could have a newspaper, and I would not let just any student enroll.

5. Students should come to school more often and when they do come they should stay in thier classes at least five hours.

6. The atmosphere is satisfactory students and teachers get along.

FIGURE 1

PERCENTAGE OF AVERAGE ACHIEVEMENT BY ACADEMY STUDENTS IN READING, MATHEMATICS, AND LANGUAGE

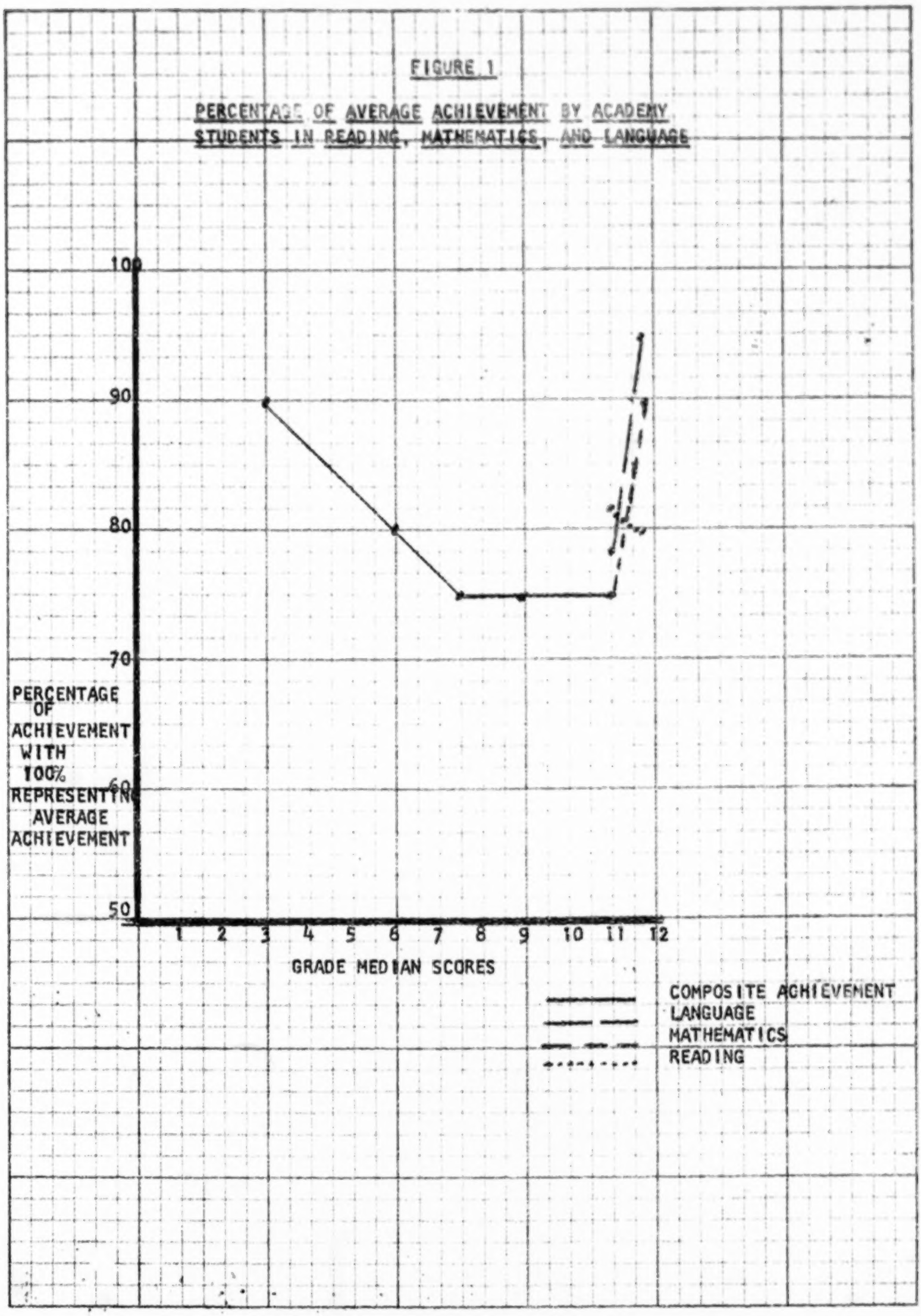


FIGURE 2

ACHIEVEMENT OF STUDENTS
DURING ENROLLMENT AT THE ACADEMY

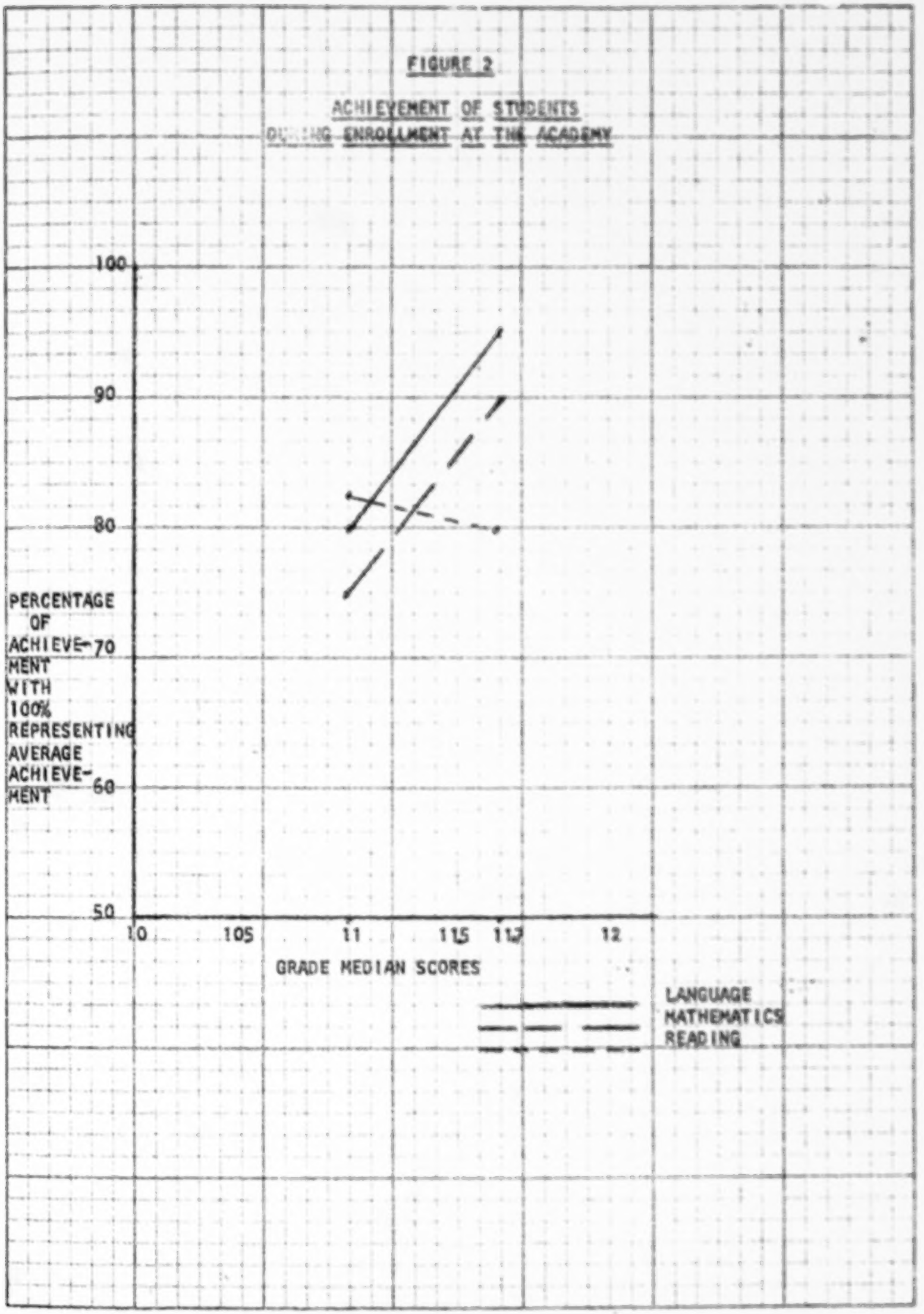


FIGURE 3

LANGUAGE ACHIEVEMENT OF ACADEMY STUDENTS

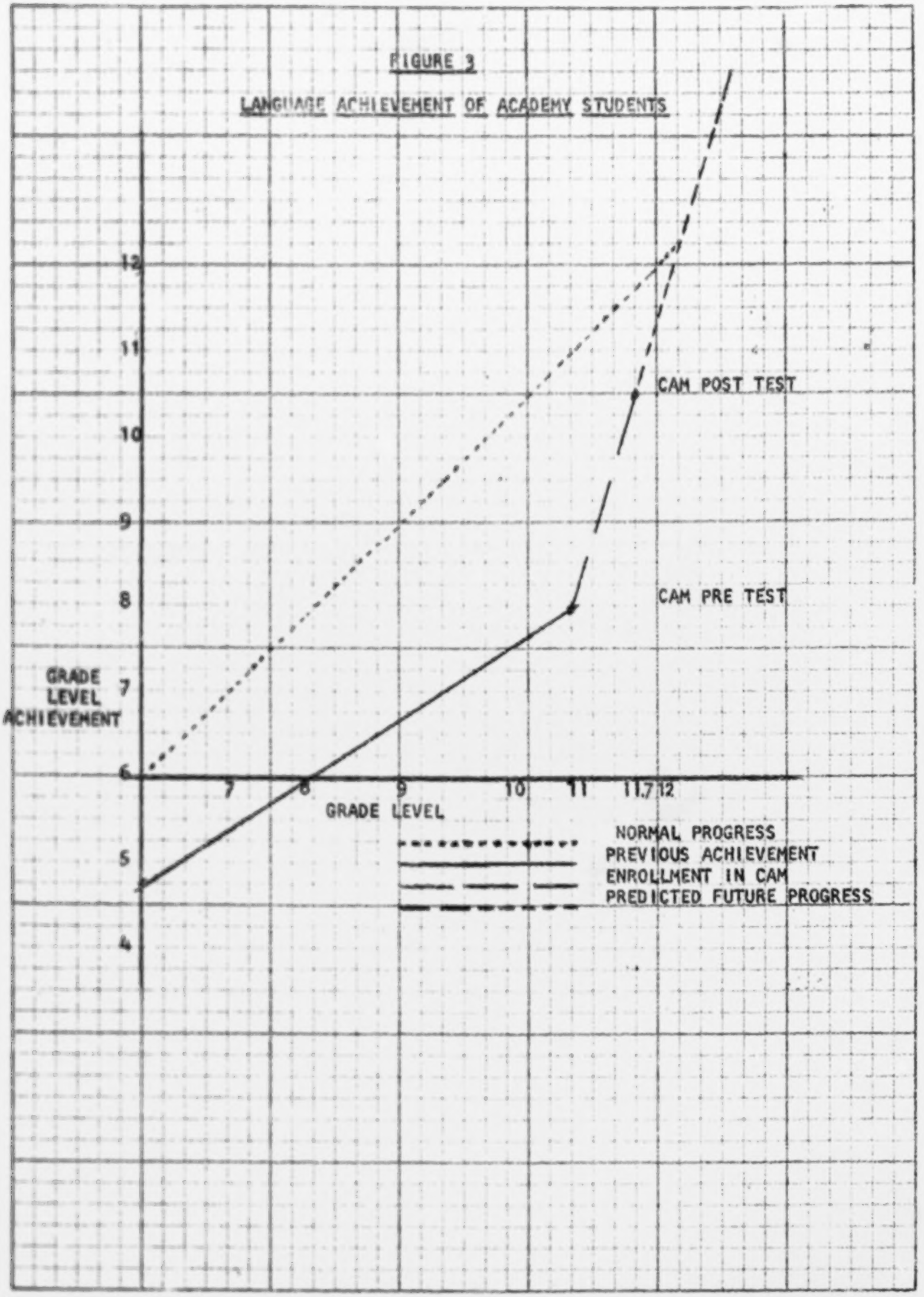
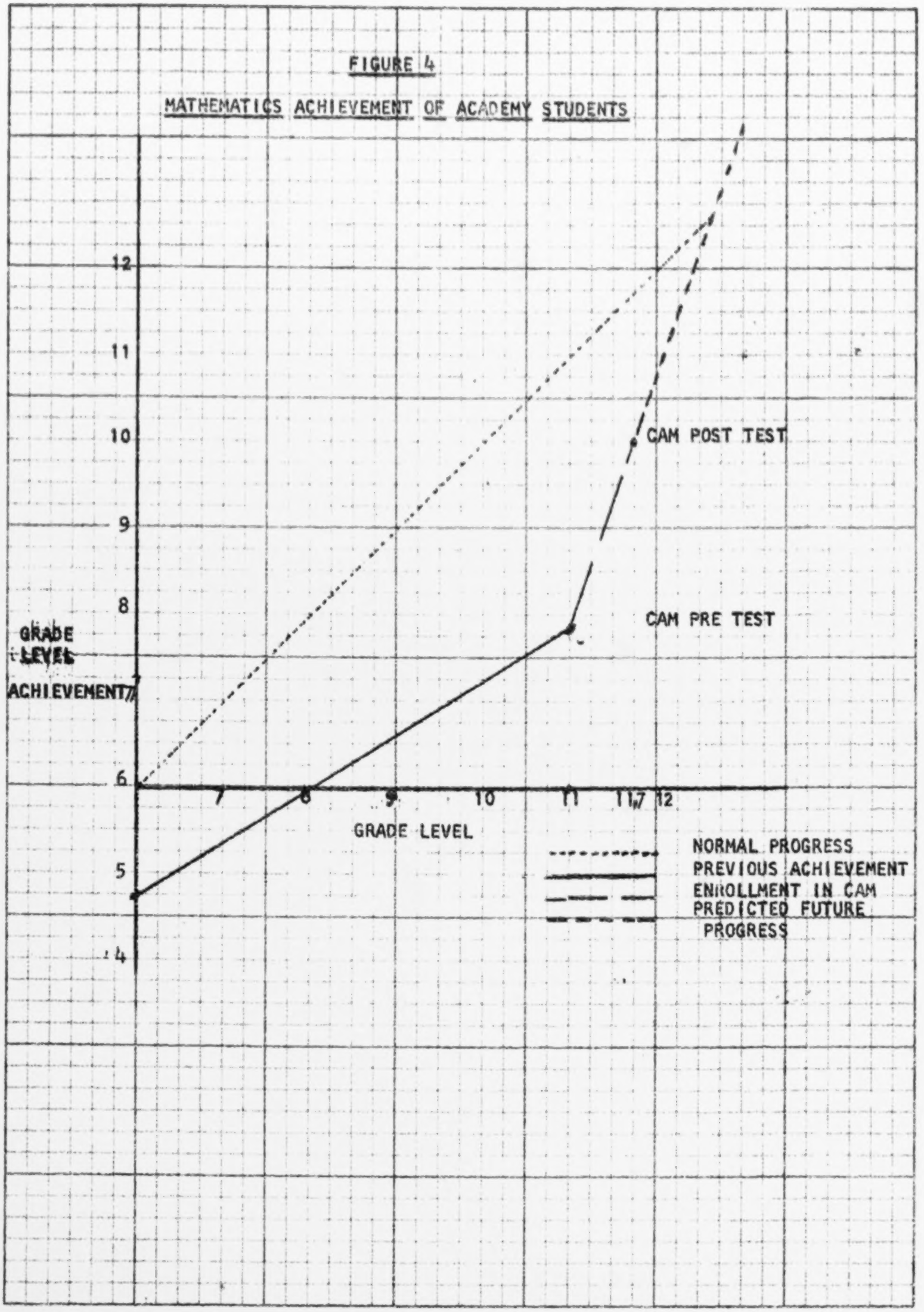


FIGURE 4

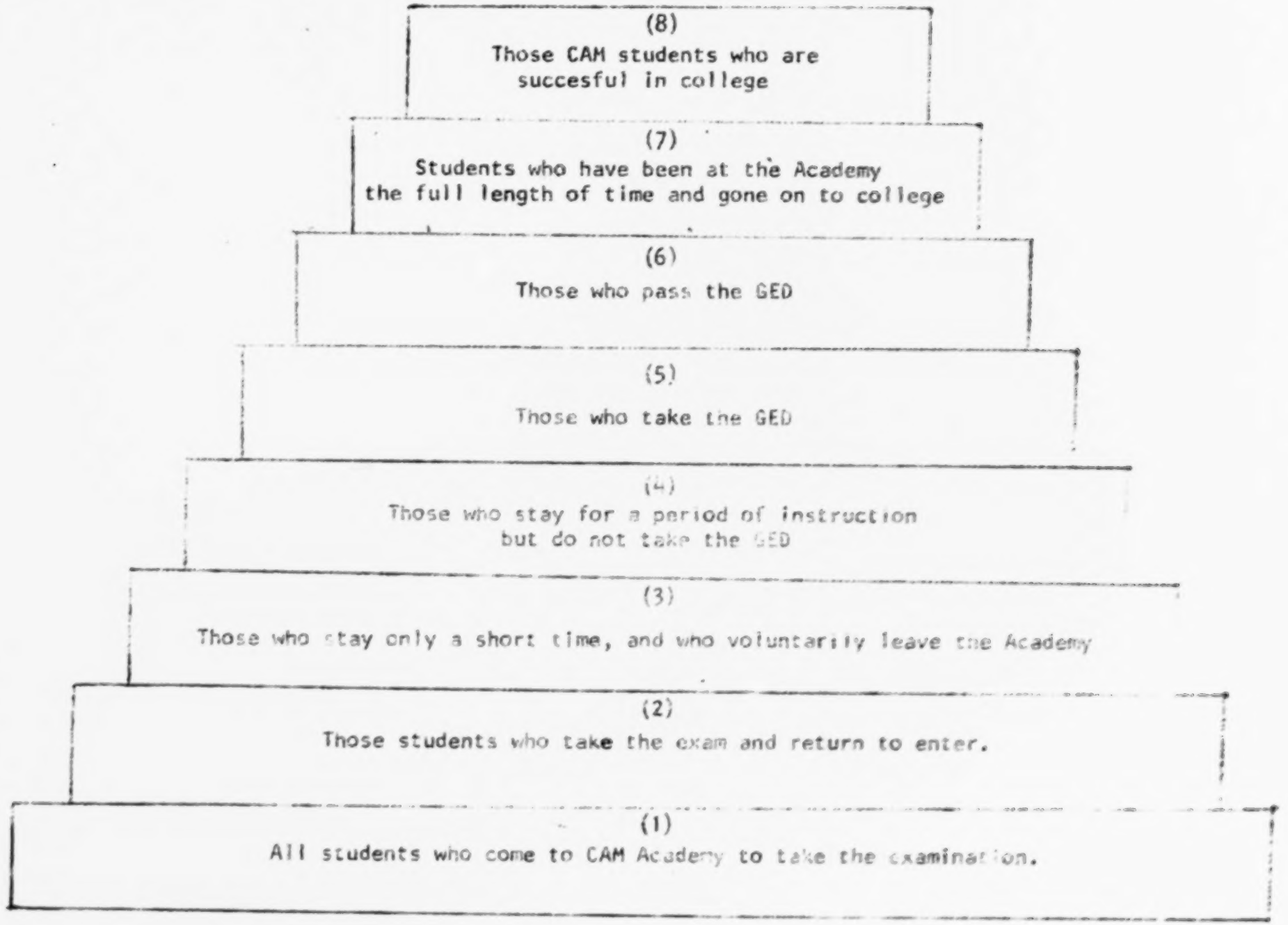
MATHEMATICS ACHIEVEMENT OF ACADEMY STUDENTS



rcs
Inch

FIGURE 5

SELECTION AND RETENTION AS IT DEFINES THE STUDENT BODY


(8)
Those CAM students who are succesful in college
(7)
Students who have been at the Academy the full length of time and gone on to college
(6)
Those who pass the GED
(5)
Those who take the GED
(4)
Those who stay for a period of instruction but do not take the GED
(3)
Those who stay only a short time, and who voluntarily leave the Academy
(2)
Those students who take the exam and return to enter.
(1)
All students who come to CAM Academy to take the examination.